

# CLAUSAL COMPLEMENTATION IN SINHALA

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# CLAUSAL COMPLEMENTATION IN SINHALA

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## Abstract

This dissertation explores two aspects of clausal complementation in colloquial Sinhala: clause structure and information structure and their interaction in both root and embedded peripheries. Though often conceived as distinct domains, both share certain common properties that may be differently represented in root and embedded peripheries. For example, the C-domain is both an information structure domain, housing topic and focus projections as well as heads that actualize key projections of the clause—finiteness and tense. Chomsky (2005) denotes that “basic tense and also tense like properties (e.g., irrealis) are determined by C (in which they are inherent: “John left” is past tense whether or not it is embedded) or by the selecting V (also inherent) or perhaps even broader context. In the lexicon, T lacks these features. T manifests the basic tense features if and only if it is selected by C (default agreement aside); if not, it is a raising (or ECM infinitival), lacking  $\Phi$  features and basic tense. So it makes sense to assume that Agree— and Tense—features are inherited from C, the phase head” (Chomsky 2005: 10).

In contrast, Rizzi (1997, 1999) considers C as a C system which hosts clause typing and information structure related heads. “The primary role of the complementizer system is the expression of Force (distinguishing various clause types) and Finiteness (the specification distinguishing at least between finite and non-finite clauses). We may think of Force and Finiteness as two distinct heads closing off the complementizer system upward and downward respectively. The need for two distinct positions becomes apparent when the topic/focus field is activated” (Rizzi 1999: 1).

Therefore, a study of clause structure and information structure in interaction will lead to a greater understanding of the phenomena associated

with both. In particular, to do this will in effect mean an investigation of how cartography and minimality-centered approaches interact.

Sinhala offers fertile ground for enquiry, given its liberal use of a number of particles and lexical words to encode topic, focus, mood and modality, the consequence of which being that the morphology makes transparent the relations between information structure and clausal architecture. In addition, the role of verbal morphology in determining the particular modal, topic, focus or Wh interpretation and scope relations highlights the overt interaction of morphology and syntax in clause structure and information structure.

This thesis argues that, in the face of cross linguistic evidence from Sinhala, (Malayalam and a number of other languages), the claim for universality in each framework—Cartographic and Minimalist—cannot be maintained. Further, it argues that both the cartographic frameworks (Rizzi, Cinque) and the minimalist framework must be used to capture the properties of Sinhala. A brief survey of the claims of the dissertation will serve to illustrate the proposals advanced here. This will be followed by a summary of the discussion in each chapter.

The distribution of complementizers is usually a manifestation of the head-head relation that exists between predicates and clausal arguments. Sinhala uses a number of complementizers—*kiyala*, *bava*, *vaga*, and *viththiya*—that show a complementary distribution; whereas *kiyala* is the quotative complementizer that introduces propositional complements, *bava* is associated with factivity. Based on the distributional facts, we argue that *kiyala* occupies the Force position, and *bava* occupies the Fin position in the Rizzi left periphery. As a consequence, factive *bava* complements that cannot host topic/focus are impoverished when compared to the propositional *kiyala* complements that can host these discourse properties.

The same question pertaining to distinctiveness and universality will be raised with respect to topic, focus, and Wh too. We will show with empirical evidence, that information structure can be part of narrow syntax, thereby further confirming the observations of Jayaseelan (2004, 2008), Aboh (2007), and Lecarme (1999) among others.

Another strand of enquiry in the dissertation interrogates whether information structure is located in Rizzi's C domain or in the inflectional domain among the modal markers of Cinque hierarchy, or whether it is the property of both domains. Our investigation denotes that information structure is not the exclusive property of either domain, but rather is visible in both domains. For example, our analysis of morphological focus indicates that focus in Sinhala occupies a vP peripheral focus position in line with Jayaseelan (2004, 2008). Further, we argue that Rizzi's INT position is among the inflectional heads of Cinque, and also, there is an epistemic modal head on top of Rizzi's Fin head. Hence, Sinhala offers evidence to conclude that information structure is dispersed along both inflectional and complementizer domains.

The position of the subject as represented in different frameworks will be another theoretical pursuit that we will explore in the study. Is [Spec, T] a universal subject position? Our discussion of mood/modality will show that the specifiers of functional heads in Cinque hierarchy can also be potential subject positions.

With respect to modals and Wh, we will highlight that a particular modal interpretation or the interrogative mood is the result of both modal/Wh word, and the verbal morphology. When the verb bears *-e* suffix, a Wh interpretation is obtained; In the absence of *-e* suffix, only an existential indefinite interpretation is possible. This highlights the interaction between morphology and syntax in determining the discourse properties of the clause.

The extent to which lexical properties determine clause structure and clausal architecture is another issue under our discussion. This will be largely explored in the form of head-head relation between a predicate and its complement. In particular, the discussion of raising and control properties of Sinhala will show that certain accepted theoretical constructs in this regard cannot have universal claims, as it is a language that lacks raising to subject as well as raising to object and ECM. Sinhala does not have raising predicates; the lexical item that corresponds to the raising predicate 'seem' in English is actually an epistemic modal head. Further, Sinhala does not have raising to object or ECM. Control properties of Sinhala too question certain assumptions in this regard. For example, is control the exclusive property of a relation between a matrix predicate and an infinitive complement? Can we have control into a finite clause? What is the role of complementizer in such cases? Do languages exhibit all types of control relations attested in literature? Could it be that the anaphoric/identical tense have a tense operator of its own? Evidence from Sinhala shows that control relations can be established with complements with finite predicates and complementizers.

Chapter 1 presents an account of the empirical terrain of this study. This is followed by a brief survey of the major claims and conclusions we reach and the structure of my arguments pertaining to these empirical observations.

Chapter 2 begins with an introduction to the complementizers in Sinhala and the basic empirical facts. This will be followed by a comprehensive discussion of Sinhala complementizer distribution, including the inflected forms of the complementizers. My main claims in this chapter are that *kiyala* is the quotative complementizer in Sinhala and it occupies Rizzi's (1997) Force position, and the *bava* complementizer determines factivity. Hence, it occupies Rizzi's Fin position.

Chapter 3 presents a comprehensive discussion of the functional architecture of the Sinhala clause. In particular, it examines the mood-modality phenomena of the Sinhala clause in terms of Cinque's (1999) functional sequence. One of our main theoretical pursuits here is the question 'how universal is the claim for universality' in Chomsky (1995-2006), Rizzi (1997), and Cinque (1999). Some of the major claims made here are: that mood-modality is determined not by the particular mood-modal marker alone but also in conjunction with verbal morphology: specifiers in Cinque hierarchy can also be potential subject positions: the modals of Sinhala are hierarchically organized and to a large extent they correspond to the rigid organization in Cinque's functional head order.

In Chapter 4, we will examine the information structure: in particular, topic, focus and Wh phenomena. The claim for universality will be once again subject to our discussion. One major argument is that Sinhala has a low focus position just above vP as in Malayalam, and this low focus position is also the position for object Wh. We will also show that there is considerable overlap between the two cartographies.

The focus of Chapter 5 is raising complements. We will begin with some empirical facts and then move on to cross linguistic raising analyses, which we use to see the Sinhala facts in a contrast. The main conclusions in the chapter are that Sinhala does not have raising to subject, raising to object or ECM, and the lexical word *vage* that corresponds to 'seem' in English is actually an epistemic modal marker.

In Chapter 6, we will examine the control complements of Sinhala. Our investigation reveals a number of important observations. One is that, a control relation can be established into finite clauses with a number of finite properties. Notable among such properties are the obligatory/optional presence of the complementizer and different temporal properties. One of our

major claims is that these finite control clauses in Sinhala are subjunctives in line with finite control in Hebrew. We will highlight that these properties raise a number of theoretical questions for a transfer/inheritance approach to control theory.

Chapter 7 is dedicated to the conclusion. Here, we will summarize the key proposals and theoretical implications arising out of our investigation of the Sinhala clausal complementation phenomena.

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When I was writing the dissertation, and even when it was almost complete, I always postponed the writing of acknowledgements taking the task very lightly. Now that I am actually doing it, I realize that the thing is not as easy as I thought, especially due to two reasons. One is that there are too many people who have helped me in numerous ways, on whose good nature I relied throughout the production of this work, so that I am worried that I may not thank them all or I may not thank them enough. The other is that the study of language in this syntactic study has convinced me that language is not enough, is often a poor tool when we attempt to express ourselves. Nevertheless, let me try.

If not for the wonderful person called Ayesha, my syntax teacher during MA, and later my MPhil supervisor, this thesis will not take the form it has. Without Ayesha's brilliant insights into Sinhala, her expertise in looking at phenomena in different perspectives which reflects her vast knowledge and experience in syntax, this thesis will not find any sense of direction—both in terms of data and analysis. Ayesha's commitment, something that I have observed for all her students, her constant readiness to help us, and her patience are in fact some unique attributes that a person can have. Sometimes our discussions took hours and hours, and still Ayesha was not tired or bored of my ramblings or crazy presentation of facts. Above all, I cherish the way she trained me and guided me throughout the dissertation, instilling confidence in me not to be intimidated by facts. My gratitude to her will never end: neither can these words express it sufficiently.

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## LIST OF ABBREVIATIONS

1	first person	NMLZ	nominalizer
2	second person	NOM	nominative
3	third person	OBJ	object
ACC	accusative	PASS	passive
ADJ	adjective	PL	plural
AGR	agreement	PRF	perfect
ART	article	PRS	present
ASP	aspect	PROG	progressive
AUX	auxiliary	PROH	prohibitive
COMP	complementizer	PST	past
COND	conditional	PTCP	participle
COP	copula	Q	question
DAT	dative		particle/marker
DECL	declarative	QUOT	quotative
DEF	definite	SG	singular
DET	determiner	TOP	topic
FOC	focus	VOC	vocative
FUT	future		
GEN	genitive		
IMP	imperative		
IND	indicative		
INDF	indefinite		
INF	infinitive		
IRR	irrealis		
LOC	locative		
NEG	negation, negator		





# CHAPTER 1

## INTRODUCTION

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### 1.1 Proposals

This dissertation explores two aspects of clausal complementation in colloquial Sinhala: clause structure and information structure and their interaction in both root and embedded peripheries. The study of these aspects has both been central in generative grammar and have been extensively dealt with over the years with a view to understanding the properties of both and finally of UG. The extension of the X-bar schema to the functional heads –CP and TP—and the explosion of the functional domain further highlights the significance of clausal architecture and information structure in syntactic theory. Though often conceived as distinct domains, both share certain common properties that may be differently represented in root and embedded peripheries. For example, the C-domain is both an information structure domain, housing topic and focus projections as well as heads that actualize key projections of the clause- finiteness and tense. Chomsky (2005) denotes that “basic tense and also tense like properties (e.g., irrealis) are determined by C (in which they are inherent: “John left” is past tense whether or not it is embedded) or by the selecting V (also inherent) or perhaps even broader context. In the lexicon, T lacks these features. T manifests the basic tense features if and only if it is selected by C (default agreement aside); if not, it is a raising (or ECM infinitival), lacking  $\Phi$  features and basic tense. So it makes sense to assume that Agree—and Tense—features are inherited from C, the phase head” (Chomsky 2005: 10).

In contrast, Rizzi (1997, 1999) considers C as a C system which hosts clause typing and information structure related heads. “The primary role of the complementizer system is the expression of Force (distinguishing various

clause types) and Finiteness (the specification distinguishing at least between finite and non finite clauses). We may think of Force and Finiteness as two distinct heads closing off the complementizer system upward and downward respectively. The need for two distinct positions becomes apparent when the topic/focus field is activated" (Rizzi 1999: 1). Therefore, a study of clause structure and information structure in interaction will lead to a greater understanding of the phenomena associated with both. In particular, to do this will in effect mean an investigation of how cartography and minimality-centered approaches interact.

Each framework stakes a claim for universality as reflected in the Uniformity Principle of Chomsky (2001) which states that in the absence of compelling evidence to the contrary, languages are uniform with variety restricted to easily detectable properties of utterances. The cartographic framework too subscribes to the same view in assuming that all languages share the same principles of phrase and clause composition and the same functional architecture in phrase and clause building. More precisely, it holds the view that "the distinct hierarchies of functional projections dominating VP, NP, AP, PP, IP etc., may be universal in the type of heads and specifiers that they involve, in their number, and in their relative order, even if languages differ in the type of movements that they admit or in the extent to which they overtly realize each head and specifier" (Cinque, Rizzi 2008: 4). In a similar fashion to Minimalism's locality/economy considerations, cartographic approaches hold that natural language design opts for local simplicity whenever possible. Each syntactic head has a simple featural specification and can enter into few syntactic relations with its associates. In attempting to show how locality, as conceived in Relativized Minimality (Rizzi 1990, 2002, 2004), interacts with cartographic approach, Rizzi observes that "it is necessary to define a refined enough typology of positions to capture the

selectivity of the effect; for instance, we must be able to express the fact that the subject position (a possible binder of certain type of traces in the VP) does not affect the chain link connecting *how* and its trace in (1) below. Here the study of locality meets with the recent attempts to draw very detailed maps of structural representations" (Rizzi 2002: 1).

(1) How did you solve the problem?

These similarities notwithstanding, the tension between the minimality-centered, impoverished structures of minimalism, and the more refined, articulated structures of cartography seems to be a real one. Minimalism has adopted a C-T-v-V system while cartography focuses on a full representation of not only the functional sequence but also of the relative order of functional heads. Therefore, the claim for universality and distinctiveness in both frameworks raises a number of questions such as: What heads in the cartography correspond to the above heads in the minimalist approach? In Cinque's functional sequence, for example, T dissolves into a number of Tense heads. The question arises here as to what Tense head corresponds to T in minimalism. Similar questions arise with regard to C domain too. For example, what corresponds to a phase in the cartographic approach? Which one of the specifiers, of Force, Fin, or Focus can be equated with the edge of CP? In fact, the tension seems to lie in the division of labor. Minimalism focuses on the mechanism of phrase and clause building whereas cartography applies to the fine details of the constructed structure.

Sinhala offers fertile ground for enquiry, given its liberal use of a number of particles and lexical words to encode topic, focus, mood and modality, the consequence of which being that the morphology makes transparent the relations between information structure and clausal architecture. In addition, the role of verbal morphology in determining the particular modal, topic, focus or Wh interpretation and scope relations highlights the overt interaction

of morphology and syntax in clause structure and information structure. The following table represents the complex interactions that Sinhala evidences:

**Table 1: Relations and Interactions**

Type of relation	Related to
Head-Head	selection of complementizers
Head-Head	lexical properties and the selection of complement type: finite, participle, gerundive, infinitive, factive, raising, control
Speech act moods and verbal morphology	realization of different speech act moods
Epistemic modal particles and verbal morphology	scope
Root modals and subject type/subject positions	epistemic/root interpretation
Wh and verbal morphology	Wh interpretation or indefinite existential interpretation
Focus and verbal morphology	scope relation
Modality, topic, focus and the root clause	clausal architecture and information structure
Modality, topic, focus and the embedded periphery	clausal architecture and information structure

This thesis argues that both the cartographic frameworks and the minimalist framework must be used to capture these properties of Sinhala. A brief survey of the claims of the dissertation will serve to illustrate the proposals advanced here.

The distribution of complementizers is usually a manifestation of the head-head relation that exists between predicates and clausal arguments. Sinhala uses a number of complementizers that show a complementary distribution; whereas *kiyala* is the quotative complementizer that introduces propositional

complements, *bava* is associated with factivity. Based on the distributional facts, we argue that *kiyala* occupies the Force position, and *bava* occupies the Fin position in the Rizzi left periphery. As a consequence, factive *bava* complements are complements that are ‘smaller’ than propositional *kiyala* complements. This is illustrated in the contrast (2)-(5). Examples (2) and (3) with the *kiyala* complementizer can host topic/focus in the embedded clause, whereas Fin headed *bava* complements are impoverished (4), (5)<sup>1</sup>.

- (2) [Nimal tamai amaruve-vaettenne kiyala] Ajith baya-una  
 [Nimal FOC trouble-fall-E(PRS) COMP] Ajith afraid-was  
 ‘Ajith was afraid that it is Nimal who will fall into trouble’
- (3) [Nimal nang amaruve-vaetenava kiyala] Ajith baya-una  
 [Nimal TOP trouble-fall(PRS) COMP] Ajith afraid-was  
 ‘Ajith was afraid that as for Nimal, he will fall into trouble’
- (4) \*[Nimal tamai amaruve-vaetena bava] Ajith baya-una  
 [Nimal FOC trouble-fall(PTCP) COMP] Ajith afraid-was  
 ‘Ajith was afraid that it is Nimal who will fall into trouble’
- (5) \*[Nimal nang amaruve-vaetena bava] Ajith baya-una  
 [Nimal TOP trouble-fall(ptcp) COMP] Ajith afraid-was  
 ‘Ajith was afraid that as for Nimal, he will fall into trouble’

The same question pertaining to distinctiveness and universality will be raised with respect to topic, focus, and Wh too. We will show with empirical

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<sup>1</sup> Most of the examples in this thesis are either extraposed or pre-posed. There is no consistency among native speakers in this. I consider this a PF option, although this needs further investigation.

evidence that information structure can be part of narrow syntax, thereby further confirming the observations of Jayaseelan (2004, 2008), Aboh (2007), and Lecarme (1999) among others.

Another strand of enquiry in the dissertation interrogates whether information structure is located in Rizzi's C domain or in the inflectional domain among the modal markers of Cinque hierarchy, or whether it is the property of both domains. Our investigation denotes that information structure is not the exclusive property of either domain, but rather is visible in both domains. For example, our analysis of morphological focus indicates that focus in Sinhala occupies a vP peripheral focus position in line with Jayaseelan (2004, 2008). Further, we argue that Rizzi's INT position is among the inflectional heads of Cinque, and also, there is an epistemic modal head on top of Rizzi's Fin head. Hence, Sinhala offers evidence to conclude that information structure is dispersed along both inflectional and complementizer domains.

The position of the subject as represented in different frameworks will be another theoretical pursuit that we will explore in the study. Is [Spec, T] a universal subject position? Our discussion of mood/modality will show that the specifiers of functional heads in Cinque hierarchy can also be potential subject positions, as indicated in the following contrast (6)-(7). The difference between these two is that (6) has a dative subject, and (7) has a nominative one. Yet, (6) conveys root modal ability, whereas (7) denotes epistemic possibility.

- (6) Nimal-ta natanna puluwan  
 Nimal-DAT dance (INF) can  
 'Nimal can dance'

- (7) Nimal natanna puluwan  
 Nimal(NOM) dance (INF) can  
 'Nimal might dance'

With respect to modals and Wh, we will highlight that a particular modal interpretation or the interrogative mood is the result of both modal/Wh word and the verbal morphology (8)-(9). In (8), the verb takes *-e* suffix and thus contributes to Wh interpretation; while in (9), in the absence of *-e* suffix, only an existential indefinite interpretation is possible. This highlights the interaction between morphology and syntax in determining the discourse properties of the clause.

- (8) Kauda pol kaeduwe?  
 Who coconuts plucked-E  
 'Who plucked coconuts?'

- (9) Kauda pol kaeduwa?  
 Who coconuts plucked  
 'Somebody plucked coconuts'

The extent to which lexical properties determine clause structure and clausal architecture is another issue under our discussion. This will be largely explored in the form of the head-head relation between a predicate and its complement. In particular, the discussion of raising and control properties of Sinhala will show that certain accepted theoretical constructs in this regard cannot have universal claims, as it is a language that lacks raising to subject as well as raising to object and ECM. Sinhala does not have raising predicates; the lexical item that corresponds to the raising predicate 'seem' in English is actually an epistemic modal head. Further, Sinhala does not have raising to object or ECM. Control properties of Sinhala too question certain assumptions in this regard. For example, is control the exclusive property of a relation



between a matrix predicate and an infinitive complement? Can we have control into a finite clause? What is the role of complementizer in such cases? Do languages exhibit all types of control relations attested in literature? Could it be that the anaphoric/identical tense have a tense operator of its own? Evidence from Sinhala shows that control relations can be established with complements with finite predicates and complementizers (10).

- (10) Mاما [PRO<sub>i</sub>/\*Ajjith kaar-eka vikunanava kiyala] thiiranaya-kara  
 I [PRO/\*Ajjith car-DEF sell(PRS) COMP ] decide-did  
 'I decided that (I) will sell the car'

Sinhala adjunct control provides evidence to show that anaphoric tense can license PRO as shown in (11)-(12).

- (11) Nimal [PRO paadam karana gamang] bath kaeva  
 Nimal [PRO studies do (PTCP) while] rice ate  
 'Nimal ate rice while (he) was studying.'

- (12) Nimal [PRO paadam kara-kara] bath kaeva  
 Nimal [PRO studies do (root)-do(root)] rice ate  
 'Nimal ate rice while (he) was studying.'

Example (11) is a typical *while* adverbial clause. Here the event time of the embedded clause is identical or anaphoric with the matrix event time. Though example (12) too conveys the same meaning and same tense relations, the particular temporal interpretation is obtained through reduplication of the verb root. In the proposals made here, an analysis based on Agree and feature transfer is advanced for control.

## 1.2 Theoretical Background

### 1.2.1 Rizzi (1997, 1999)

Rizzi's seminal paper on the fine structure of the left periphery (1997) expounds a proposal for decomposition of the complementizer layer of the clause into a series of functional projections in analogy to Pollock's decomposition of the sentence eight years earlier. Motivating this decomposition by the peculiarities of complementizers of Italian and other Romance languages, Rizzi argues that interrogative and relative pronouns, topics, and foci project their own X-bar projections, and that this articulated array of projections constitutes the complementizer system (C-system).

The C-system is an interface between two layers of an information system, one interfacing with the domain of discourse - typing the clause as interrogative, relative, adverbial, etc., - and, the other interfacing with the domain of the sentence - expressing the content within TP, and determining its finiteness properties. Accordingly, the information contained in the higher structure is called the specification of Force (or Force) and the lower, more inward-looking structure headed by TP, as Finiteness.

The primary role of the C-system is the expression of force and finiteness, two distinct heads that close off the C-system upward and downward. The overt morphological realization of the finite/non-finite distinction can vary crosslinguistically, as languages tend to split verbal paradigms into finite and non-finite forms. Mood distinctions such as indicative, subjunctive, conditional, realis/irrealis etc., and tense and agreement forms are characteristics of the finite form, while the non-finite forms do not manifest such features. However, the TP system and the C-system should be treated as distinct due to substantial differences between them, such as the relatedness of the TP system to the verb that make the TP an extension of the verbal

projection, whereas the inflectional properties of the C are expressed on free functional morphemes such as “that”, “que” etc.

Rizzi’s proposals also capture the traditional association that topic and focus have with the left periphery of the clause, as they accommodate the claim that the C-system has other functions independently of the selectional relations between the higher and lower structural systems of force and finiteness. The topic is a pre-posed element separately marked off from the rest of the clause by the “comma intonation” as shown in the following English example. (Rizzi 1997: 285)

(13) Your book, you should give t to Paul (not to Bill)

The topic expresses the old information that can be traced to the previous discourse while the comment is an open sentence predicated upon the topic, expressing new information.

Compared to the topic-comment articulation, the focus-presupposition has a different interpretive function, though it is linearly quite similar to the former. The pre-posed element “YOUR BOOK” (14) is in focus as it carries the new information, whereas the open sentence expresses the presupposed or the old information. This marked distinction between the two articulations is captured by other languages too. (Rizzi 1997: 285)

(14) YOUR BOOK you should give t to Paul (not mine)

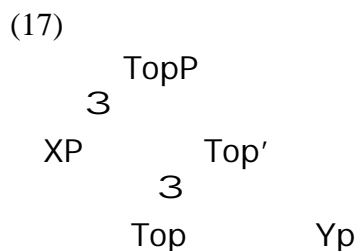
Rizzi illustrates that in Italian and in other Romance languages, the topic-comment articulation is expressed by a construction involving a resumptive clitic co-referential to the topic (Clitic Left Dislocation: CLLD) as shown in (15). (Rizzi 1997: 286)

(15) Il tuo libro, lo ho letto  
“Your book, I have read it”

The focus-presupposition articulation can be expressed in Italian by preposing the focal element and assigning it special focal stress. (Rizzi 1997: 286)

- (16) IL TUO LIBRO ho letto (non il suo)  
 "Your book I read" (not his)

Rizzi (286, 287) provides the following X-bar projections for the topic-comment and focus-presupposition sentences above.

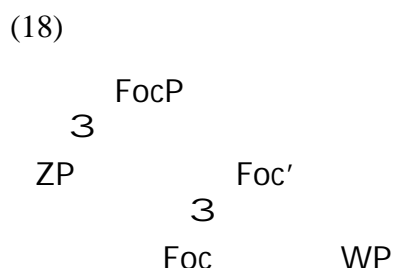


XP=Topic

YP=Comment

As shown in (17), the topic head, which is a functional projection in the C-system, projects its own X-bar schema with the topic in the specifier position and comment as the complement.

Analogously, a focus head takes the focus as its specifier and the presupposition as its complement.



ZP=Focus

WP=Presupposition

In order to bring topic/focus raising in line with the crucial assumption that "movement is last resort", Rizzi proposes a topic and focus criterion, similar

to the Wh and NEG criteria. Accordingly, the constituent encoding topic or focus features must end up in a [Spec-head] configuration with topic or focus. This restrictive theory of movement based on a feature criterion, rules out other syntactic movements such as free movement or adjunction to the left periphery.

Unlike the force-finite system which is an essential part of the C-system present whenever there is a CP, the topic-focus field is present in the structure only when it is activated, that is, when a constituent bearing topic or focus needs to be licensed by a [Spec-head] criterion. Since force and finiteness closes off the C-system upward and downward, the topic-focus field is located between the two C-heads on either side as shown below.

(19) Force..... (Topic)..... (Focus).....Fin IP

The positions occupied by Force and Finiteness are justified on empirical grounds using the behavior of complementizers “di” and “che” in Italian (which Rizzi says is applicable to Romance in general). In Italian (Romance), prepositional elements introducing infinitives such as “di” are generally considered the non-finite counterparts of the finite complementizer “che”. Yet they show differential behavior with respect to a left-dislocated phrase as “che” always precedes and “di” always follows such a phrase as shown in (20)-(22) (Rizzi 1997: 288).

- (20) a. Credo che loro apprezzerebbero molto il tuo libro  
       “I believe that they would appreciate your book very much”  
       b. Credo di apprezzare molto il tuo libro  
       “I believe “of” to appreciate your book very much”
- (21) a. Credo che il tuo libro, loro lo apprezzerebbero molto  
       “I believe that your book, they would appreciate it a lot”

- b. \* Credo il tuo libro, che loro lo apprezzerebbero molto  
 "I believe, your book, that they would appreciate it a lot"
- (22)
- a. \*Credo di il tuo libro, apprezzarlo molto  
 "I believe "of" your book to appreciate it a lot"
  - b. Credo, il tuo libro, di apprezzarlo molto  
 "I believe, your book, 'of' to appreciate it a lot"

The distributional differences between "di" and "che" as shown above suggest the necessity for an articulated C-system with "che" occupying the Force position and "di" occupying the Finite position, differences that can hardly be accommodated by a unique C-position.

Further evidence for the highest C-position (Force) is provided by the distribution of relative operators and question operators in Italian. As shown in (23) and (24), the relative operators must precede topics and occupy the highest C-position, while question operators must follow topics in main questions and can occupy a lower position within the topic/focus field (Rizzi 1997: 287).

- (23)
- a. Un uomo a cui, il premio Nobel, lo darranno senz' altro  
 "A man to whom, the Nobel Prize, they will give it undoubtedly"
  - b. Un uomo, il premio Nobel, a cui lo darranno senz' altro  
 "A man, the Nobel Prize, to whom they will give it undoubtedly"
- (24)
- a. \*A chi, il premio Nobel, lo darranno?  
 "To whom, the Nobel Prize, will they give it?"
  - b. Il premio Nobel, a chi lo darranno?  
 "The Nobel Prize, to whom will they give it?"

Rizzi (1999) proposes a further refined articulation of the C-system with the inclusion of "se" (if) in Italian into the left periphery as a distinct functional

head. “Se” (if) in Italian has positional properties in common with the declarative “che” when occurring with a focused phrase, but shows different positional properties with respect to a topic phrase. Embedded Yes/No questions are introduced by “se”, and both “che” and “se” are followed by a focus phrase as in (25)-(26) (Rizzi 1999: 2)

- (25) a. Credo che QUESTO avreste dovuto dirgli (non qualcos’ altro)  
 “I believe that THIS you should have said to him, not something else”  
 b. \* Credo QUESTO che avreste dovuto dirgli (non qualcos’ altro)  
 “I believe THIS that you should have said to him, not something else”
- (26) a. Mi domando se QUESTO gli volessero dire (non qualcos’ altro)  
 “I wonder if THIS they wanted to say to him, not something else”  
 b. \*Mi domando QUESTO se gli volessero dire (non qualcos’ altro)  
 “I wonder THIS if they wanted to say to him, not something else”

However, the distribution of “se” and “che” differs when they occur with a topic phrase. “Se” can be preceded and followed by a topic, while “che” can be followed by a topic as shown in (27) (Rizzi 1999: 3).

- (27) a. Credo che a Gianni, avrebbero dovuto dirgli la verita  
 “I believe that to Gianni, they should have said the truth to him”  
 b. \* Credo a Gianni che, avrebbero dovuto dirgli la verita  
 “I believe to Gianni that, they should have said the truth to him”  
 c. Non so se, a Gianni, avrebbero potuto dirgli la verita  
 “I don’t know if to Gianni, they could have said the truth”  
 d. Non so, a Gianni se, avrebbero potuto dirgli la verita  
 “I don’t know to Gianni, if they could have said the truth”

- e. Mi domando se questi problemi, potremo mai affrontarli  
 "I wonder if these problems, we will ever be able to address them"
- f. Mi domando, questi problemi, se potremo mai affrontarli  
 "I wonder these problems, if we will ever be able to address them"

As shown in the above data, "se" occupies a distinct position lower than that of "che" but necessarily higher than Focus, and can be preceded by a Topic. This distinct position of "se" is identified as INT(errogative) and is represented in the following way in the C-system.

(28) FORCE (TOP\*) INT (TOP\*) FOC (TOP\*) FIN IP

Rizzi gives the following example for simultaneous realization of the three topic positions following FORCE, INT, and FOC respectively (Rizzi 1999, 12)

- (29) Mi domando, a Gianni, se, ieri, QUESTO, alla fine della riunione,  
 avremmo potuto dirgli (non qualcos' altro)  
 "I wonder, to Gianni, if yesterday, THIS, at the end of the meeting,  
 we could have said to him (not something else)"

Rizzi argues that Wh elements and "se" are not compatible as the structural layer whose head is "se" is clearly distinct from the position occupied by the Wh elements in main questions. Although "se" can occur with a lower focus, as in (26, a), Wh elements in main questions cannot co-occur with a focus, in either order as shown in (30) (Rizzi 1999: 4).

- (30) a. \*A chi QUESTO hanno detto (non qualcos" altro)?  
 "To whom THIS they said (not something else)?"
- b. \*QUESTO a chi hanno detto (non qualcos" altro)?  
 "THIS to whom they said (not something else)?"
- c. \*A GIYANNI che cosa hanno detto (non a Piero)?  
 "TO GIYANNI what they said (not to Piero)?"



d. Che cosa A GIYANNI hanno detto (non a Piero)?

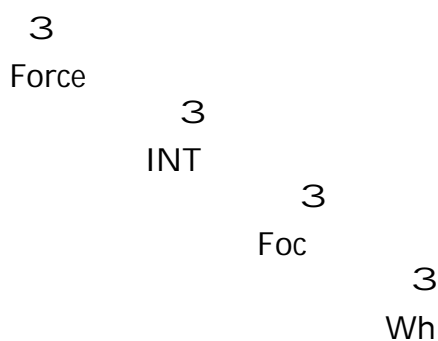
“What TO GIYANNI they have said (not to Piero)?”

This incompatibility between Wh elements and “se” is explained in terms of a competition between the Wh elements and the focused constituents for the same [Spec, FOC]. Wh elements in main questions move to the specifier of FOC head which is also the target of focused-constituent movement. However, this incompatibility is marginal in the case of Wh elements in embedded clauses as the Wh elements are not forced to move to [Spec, Foc]. Rizzi suggests that there must be a position lower than FOC available to Wh elements in embedded questions. This also shows that the position occupied by “se” is distinct from, and higher than the position occupied by Wh elements.

Based on the different positions occupied by the WH elements, “se” and FOC, in the above examples, Rizzi proposes the following order for embedded clauses.

(31) FORCE...INT...FOC...WH..... (Embedded clauses)

(32)



The position of INT in main questions cannot be properly identified as Italian lacks a morphological marker to introduce main yes/no questions. However, Rizzi concludes that a small class of Wh elements fills a higher position than ordinary Wh elements and this position is identified as INT. This is based on the requirement for I-to-C movement for [Spec-head] configuration with the Wh operator in the case of Wh elements corresponding to arguments or lower

adverbials requiring inversion in Italian main interrogatives. In such cases, the subject cannot intervene between the Wh operator and the inflected verb as this violates the Wh-criterion, as in (33) (Rizzi 1999: 5, 16).

- (33) a. \*Che cosa Gianni ha fatto?  
           ‘What Gianni did?’  
       b. Che cosa ha fatto Gianni?  
           ‘What did Gianni?’  
       c. \*Dove Gianni e andato?  
           ‘Where Gianni went?’  
       d. Dove e andato Gianni?  
           ‘Where went Gianni?’  
       e. \*Come Gianni e partito?  
           ‘How Gianni left?’

### 1.2.2 *Cinque (1999)*

Based on a wealth of crosslinguistic evidence, Cinque (1999) builds up the argument, that natural language clause is a construct of moods, modals, tenses, and aspects. He argues that these major clause-building categories are rigidly, hierarchically ordered with respect to each other, as in (34) (Cinque 1999: 76).

- (34) MOOD speech act > MOOD evaluative > MOOD evidential > MOOD epistemic > T(Past) > T(Future) > MOOD (Ir)realis > ASP habitual > T(Anterior) > ASP perfect > ASP retrospective > ASP durative > ASP progressive > ASP prospective / MOD root > VOICE > ASP celerative > ASP completive > ASP(semel) repetitive > ASP iterative

Cinque further proposes that adverb phrases are unique specifiers of this fixed universal ordering of the set of moods, modals, tenses, and aspects.

Beginning with the general pattern of adverb distribution in Italian and French, that later extended to Romance and other languages, Cinque proposes an ordered sequence where “higher” (sentence) adverbs precede an ordered sequence of “lower” adverbs that can either appear initial to the VP, or final to it (where they bear the nuclear (or focus) stress). In addition, he also proposes the existence of various VP internal post-complement adverbials that are unordered with respect to one another and precede “lower” AdvPs in the VP final-position. The sequence proposed is the following (Cinque: 16).

- (35) “Higher” (sentence) AdvPs > “lower” AdvPs > (DP sub) (V)  
 complements > Place, time, manner adverbials > (focused) “Lower  
 AdvPs > de-accented material.

Based on the distribution of AdvPs in Italian, French, and other Romance languages, Cinque observes the presence of a head position of a functional projection to the immediate right and left of each such AdvP. Then the two independently established hierarchies, the AdvPs and the functional heads are matched systematically from left to right. The transparent semantic relation that exists between each adverb class and the contiguous head morpheme provide evidence that each AdvP is the specifier of the phrase projected by the corresponding functional head morpheme. The functional projection is considered to be structurally present in every language irrespective of the AdvP’s lack of overt morphological realization corresponding to the particular functional head in the case of certain languages. Agreement and negation are treated as special cases among functional elements as they can occur in several distinct positions even within the same language, sometimes simultaneously. The picture thus emerges is of a rich, fine-grained hierarchy of functional projections that is given in (36).

(36) Mood, Speech act (frankly) > Mood-Evaluative (fortunately) > Mood-Evidential (allegedly, evidently) > Mod-Epistemic (probably) > Tense (past)(once) > Tense (Fut) then > Mood-Irrealis (perhaps) > Mod-necessity (necessarily, must) > Mod-Possibility (possibly, can) > Asp-Habitual (usually, used to) > Asp-pre-dispositional (tend) > Asp-Frequentative (often) > Mod-Volitional (want) > Asp-Celerative (quickly) > Tense-Anterior (already) > Asp-Terminative (any/no longer) > Asp-Continuative (still) > Asp-Perfect (always) > Asp-Retrospective (just) > Asp-Proximate (soon) > Asp-Durative (briefly) > Asp-Generic-Progressive (characteristically, progressive) > > Asp-Prospective (almost, be about to) > Mod-Obligation (inevitable, need, must) > Mod-Ability (cleverly, can, be able) > Asp-Inceptive (begin) > Asp-Frustrative/Success (manage) > Mod-Permission (be allowed) > Asp-Conative (try) > Asp-Sing-Completive (completely, finish) > Asp-Plur-Completive (tutto/tout) > Voice (well) (Manner) > Asp-Repetitive (again) > Asp-Inceptive (begin) > Asp-Celerative (fast, early) > Asp.Sing-Completive > Asp-Frequentative (often)

On the question of how much variation should UG allow in the number and type of functional projections available to different languages, Cinque concludes that UG allows no variation at all. Languages do not differ according to the hierarchical order of the functional projections as the order is invariant across languages. Cinque also proposes that the entire array of functional projections is present in every sentence with an unmarked (default) value and a marked value attached to each adverb-related functional projection. "Marked" is the member with the more restricted application, less frequent, conceptually more complex, expressed by overt morphology. "Unmarked" is the member with wider application, more frequent, conceptually basic, often expressed with zero morphology. Consequently, even the simplest sentence of any one language can be considered to contain

the entire array of functional projections (with default values)". (Cinque (1999: 128)

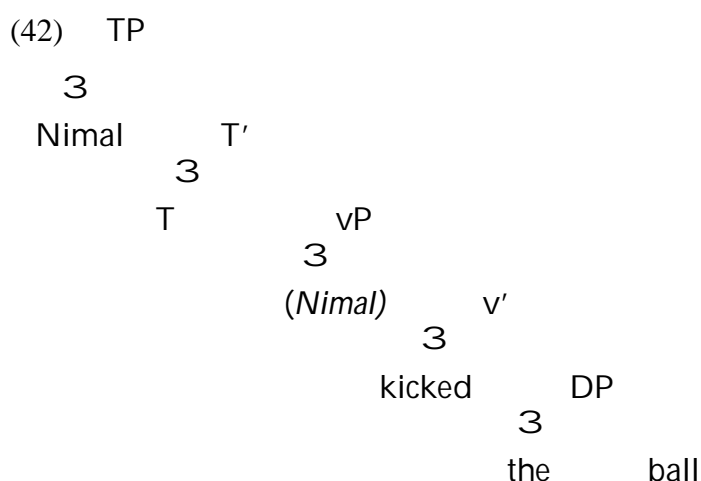
### **1.2.3 Chomsky (1998, 1999, 2001, 2006)**

Chomsky (1998, 1999, 2001, 2006) pursues the strong minimalist thesis by exploring the extent to which minimalist properties of the Faculty of Language (FL) can be derived from interface properties. Language is a generative procedure that constructs the pairs  $(\pi, \lambda)$  that are interpreted at the articulatory-perceptual (A-P) and conceptual-intentional (C-I) interfaces, and are subject to the condition of Full Interpretation (FI). For syntax to provide legible expressions to these performance systems with which it interfaces, certain operations are indispensable. Central to this structure building apparatus are the operations select, merge, move, agree, feature valuation and feature transfer. The derivation begins with a 'numeration', a selection of elements copied from the lexicon (LEX), and the operation takes place bottom up. The following definitions and the example illustrate this procedure.

- (37) Select: Select LA (lexical array- a collection of lexical items) from Lex.  
Lexical array is a Numeration if some lexical items are selected more than once.
- (38) Merge takes two syntactic objects (a, b) and forms  $K(a, b)$  from them.
- (39) Agree establishes a relation (agreement: case checking) between a lexical item (LI) and a feature (F) in some restricted search space/its domain.
- (40) Move: Move establishes agreement between a lexical item and a feature. It combines Merge and Agree (A- movement if motivated by a phi- feature: A-bar if motivated by a P(peripheral) feature such as topic/focus/Wh).

Suppose we construct the expression 'Nimal kicked the ball'. We select these four LIs, from Lex, each occurring once in the construction and they thus form our Numeration. The derivation proceeds in the following manner (case assignment aside and straightaway constructing vP).

- (41)
- a. Merge 'the' and 'ball' and form the syntactic object (DP) 'the ball'.
  - b. Merge the DP 'the ball' with the V 'kicked' and form the new syntactic object, 'kicked the ball'.
  - c. In order to complete all theta-argument relations of the lexical domain, Merge 'Nimal' with the v' 'kicked the ball'. Now we have the vP 'Nimal kicked the ball'.
  - d. Merge T with the vP thus formed.
  - e. T- has an EPP feature and the unvalued phi-features and therefore it Probes in its search domain for a suitable Goal. 'Nimal' at [Spec, vP] with its valued phi-features is a matching Goal. Agree takes place and 'Nimal' moves to [Spec, T] thus forming the TP 'Nimal kicked the ball'



In more recent versions of minimalism (Chomsky: 2006), Chomsky suggests that the derivation proceeds by phases where phases are propositional units that have phonetic independence. The motivations for phases are both conceptual and empirical. For example, the complexity considerations such as

simple operations preempting complex ones and limiting the search space (locality). Also, to resolve the problem of sentences with expletives where complexity arises regarding Merge over Move. Among the two phases, CP phase is considered a strong phase and a complete expression structure, whereas the vP phase is the complete argument structure.

In answering the question 'what are the phases?', Chomsky (2006) observes: "they are CP and v\*P, where C is shorthand for the region that Rizzi (1997) calls the "left periphery," possibly involving feature spread from fewer functional heads (may be only one); and v\* is the functional head associated with full argument structure, transitive and experience constructions, and is one of several choices for v, which may furthermore be the element determining that the selected root is verbal " (Chomsky 2006: 10). Although Chomsky rules out T as a phase head, he denotes the indispensable position of T in the clause structure. This introduces the core functional categories C, T, and v, that are involved in the structure building apparatus. C expresses elocutionary force/mood and has an optional EPP/Edge feature for Wh/topic/focus.

One crucial assumption here is feature transfer/inheritance. T does not have Agree features in and of itself and therefore it cannot act as an independent probe. T inherits its Agree features from C. As a result, it is C that ultimately initiates the Agree relation that values the case feature of the subject and optionally raises the subject. Since C's Agree features are transferred to T, the subject moves to [Spec, T] and not to [Spec, C]. The relation v\* V is similar to the relation between C-T; v\* also has an Edge feature and Agree features and as in the case of C-T, Agree features of v\* are inherited by its complement, V. Hence, object agreement takes place in [Spec, V] and not in [Spec, v\*].

### 1:3 Organization of the Dissertation

The dissertation is structured in the following manner. Chapter 2 begins with an introduction to the complementizers in Sinhala and the basic empirical facts. This will be followed by a comprehensive discussion of Sinhala complementizer distribution, including the inflected forms of the complementizers. My main claims in this chapter are that *kiyala* is the quotative complementizer in Sinhala and it occupies Rizzi's (1997) Force position, and the *bava* complementizer determines factivity. Hence, it occupies Rizzi's Fin position.

Chapter 3 presents a comprehensive discussion of the functional architecture of the Sinhala clause. In particular, it examines the mood-modality phenomena of the Sinhala clause in terms of Cinque's (1999) functional sequence. One of our main theoretical pursuits here is the question 'how universal is the claim for universality' in Chomsky (1995-2006), Rizzi (1997), and Cinque (1999). Some of the major claims made here are that mood-modality is determined not by the particular mood-modal marker alone but also in conjunction with verbal morphology: specifiers in Cinque hierarchy can also be potential subject positions: the modals of Sinhala are hierarchically organized and to a large extent they correspond to the rigid organization in Cinque's functional head order.

In Chapter 4, we will examine information structure: in particular, topic, focus and Wh phenomena. The claim for universality will be once again subject to our discussion. One major argument is that Sinhala has a low focus position just above vP as in Malayalam and this low focus position is also the position for object Wh. We will also show that there is considerable overlap between the two cartographies.

The focus of Chapter 5 is raising complements. We will begin with some empirical facts and then move on to cross linguistic raising analyses, which



we use to see the Sinhala facts in a contrast. The main conclusions in the chapter are that Sinhala does not have raising to subject, raising to object or ECM and the lexical word *vage* that corresponds to ‘seem’ in English is actually an epistemic modal marker.

In Chapter 6, we will examine the control complements of Sinhala. Our investigation reveals a number of important observations. One is that, a control relation can be established into finite clauses with a number of finite properties. Notable among such properties are the obligatory/optional presence of the complementizer and different temporal properties. One of our major claims is that these finite control clauses in Sinhala are subjunctives in line with finite control in Hebrew. We will highlight that these properties raise a number of theoretical questions for a transfer/inheritance approach to control theory.

Chapter 7 is dedicated to the conclusion. Here, we will summarize the key proposals and theoretical implications arising out of our investigation of the Sinhala clausal complementation phenomena.

## CHAPTER 2

### COMPLEMENTIZER DISTRIBUTION IN SINHALA

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#### 2.1 Introduction: From Comp to C°

The extensive amount of empirical inquiry and the consequent theorizing about the complementizer showcase the prominence attached to the functional category over the last few decades. Early transformational grammar viewed the complementizer as a category lacking both semantic content and significant syntactic function whose insertion needed a series of transformations. Since Barriers (Chomsky 1986), however, the complementizer and its domain have been the focus of inquiry, resulting in the current situation where it is considered a 'core functional category' in minimalist approaches.

A brief historical appreciation of how this radical change in states came about would be a good place to start our discussion. With the pursuit of Explanatory adequacy in the late 60s and 70s, and the elimination of generalized transformations in favor of recursion in phrase structure rules, a more restrictive theory was achieved. However, it was 'Remarks on Nominalization' (Chomsky 1970) and the introduction of X-bar schema that paved the way for the establishment of complementizer as a distinct head. The property of endocentricity inherent to X-bar theory required that every phrase was a projection of a head with a specifier and a complement. Since the categories S, S', Infl and Comp had a peculiar status, incorporation of these into X-bar schema was required. These categories had been introduced by the following Phrase Structure (PS) rules whereby S and S' were not lexical categories extracted from the lexicon and hence were incompatible with the X-bar format.

- (1) S' → Comp S
- (2) S → NP Infl VP

However, with empirical arguments for lexical status of both Comp and Infl, it was evident that Comp should be analyzed as head of CP (=S') and Infl as head of TP (=S). The type of the complementizer determined the type of embedding TP. The complementizers 'that' and 'if' select a finite clause as their TP complement (3 a, b); 'for' selects an infinitival clause (c), and 'whether' selects either type (d, e).

- (3) a) I think [CP that [IP John will sell his old car]]
- b) I will ask [CP if [IP John will sell his old car]]
- c) I expect [CP for [IP John to sell his old car]]
- d) Mary wonders [CP whether [IP John sold his old car]]
- e) John wonders [CP whether [IP to sell his old car]]

Similarly, the feature composition [+/-WH] of the complementizer determined the illocutionary force of the embedded IP, distinguishing between a declarative (4 a, b) and an interrogative (c, d, e).

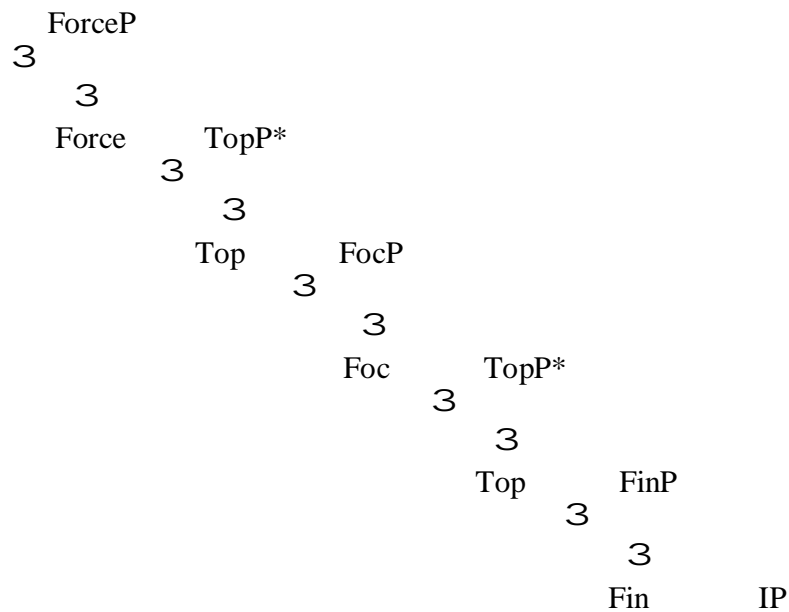
- (4) a) I think [CP [-Wh] that [IP John will sell his old car]]
- b) I expect [CP [-Wh] for [IP John to sell his old car]]
- c) I will ask [CP [+Wh] if [IP John will sell his old car]]
- d) Mary wonders [CP [+Wh] whether [IP John sold his old car]]
- e) John wonders [CP [+Wh] whether [IP to sell his old car]]

The above examples were also argued to reveal the nature of complementation as a head-head relation. For example, verbs like 'think' select a [-Wh] complement

and verbs such as 'wonder' select a [+Wh] complement. This new theoretical approach to the complementizer introduced some major syntactic filters and operations such as the Doubly Filled Comp filter, That -trace filter, and Government into the grammar. The specifier position of C provided the scope/operator position for all forms of scopal/quantificational elements that established the A-bar distinction.

Cartographic developments have viewed C in a different perspective as a consequence of empirical research that revealed that a single complementizer head could not accommodate diverse complementizer related phenomena observed in many languages. This led to Rizzi's (1997) proposal for a split CP (along the lines of Pollock's (1983) split Infl proposal). Motivating this decomposition by the peculiarities of complementizers of Italian and other Romance languages, Rizzi argues that the C-system is an interface between two layers of an information system, one interfacing with the domain of discourse—typing the clause as interrogative, relative, adverbial, etc., -- and the other interfacing with the domain of the sentence - expressing the content within IP, and determining its finiteness properties. The information contained in the higher structure is called the specification of Force (or Force), and the lower, more inward-looking structure headed by IP, as Finiteness. Since Force and Finiteness close off the C-system upward and downward, the topic-focus field is located between the two C-heads on either side.

(5)



Whereas the cartographic proposals established distinct heads in the C-domain, the developments within the Minimalist Program and consequent work have established a stronger connection between C and T. The phase head C is the locus of uninterpretable features that are transferred to T, making the distinction between defective/non-defective T in terms of feature transfer. While it is not standard with the literature to reconcile the cartographic approach with the minimalist one, I will argue in this chapter that the richness of descriptive power that the former approach embodies is necessary for an understanding of the complementizer domain. I set out to do it in the following manner.

Section 2.2 introduces the study of complementizers in Sinhala and the basic empirical facts. Section 2.3 examines the c-selectional facts about the complementizers, in particular, selection and finiteness as well as selection and discourse related phenomena. This section also discusses the complementizers in terms of the insights derived from these distributional facts and attempts an

analysis along Rizzi's Force-Fin. Section 2.4 deals with the inflected forms of the complementizers. Section 2.5 is the chapter conclusion.

## 2.2 Complementizers in Sinhala: the descriptive facts

A discussion of the C-domain essentially entails reference to the functional heads operating above TP (IP in earlier framework) with particular reference to their structural position and distribution in relation to clausal architecture. In minimalist terms, this refers to the C head and its edge. Sinhala has four categories which mainly function as complementizers with a differential distribution. They are, *kiyala*, *bava*, *vaga*, and *viththiya*. Of these complementizers, *kiyala* has the widest distribution both in terms of frequency in discourse as well as c- selectional restrictions with respect to the verb form selected. As a consequence, only the complementizer *kiyala* has received the most prominent attention in literature. *Bava* is more restricted to literary Sinhala though its occurrence in speech too cannot be ruled out (at least with some predicates). Though *vaga* and *viththiya* are in complementary distribution with *bava* in speech, both these have not received an analysis as complementizers.

All the above complementizers occur clause finally as it is typical in many Indo-Aryan languages. The following examples show the distribution of these complementizers. Example (6) has the *kiyala* complementizer with a past tense verb in the embedded sentence.

- (6) Nimal    kiuwa    [Mary    gedara    aava    kiyala]  
       Nimal    said    [Mary    home    came    COMP]  
       'Nimal said that Mary came home'

Example (7) shows the use of the *bava* complementizer. This sentence differs from the above (6) in the embedded verb form. Whereas *kiyala* can occur with a

past tense verb, *bava* cannot. It can occur with only the participle/adjectival verb forms.

- (7) Nimal kiuwa [Mary gedara aapu bava]  
 Nimal said [Mary home come(PTCP) COMP]  
 'Nimal said that Mary came home'

Both example (8) and (9) differ from (7) only with respect to the complementizer. All three occur with a participle/adjectival verb form. *Vaga* and *viththiya* are generally considered more colloquial than *bava*.

- (8) Nimal kiuwa [Mary gedara aapu vaga]  
 Nimal said [Mary home come(PTCP) COMP]  
 'Nimal said that Mary came home'

- (9) Nimal kiuwa [Mary gedara aapu viththiya]  
 Nimal said [Mary home come(PTCP) COMP]  
 'Nimal said that Mary came home'

### 2.2.1 Kiyala

Although listed as a complementizer with the others, *kiyala* is both morpho-syntactically and semantically different from the other three and also shares a number of similarities with most of the Indo-Aryan complementizers/quotative markers. The most frequent use of *kiyala* is as a quotative marker basically introducing the content of speech or thought occurring with a matrix logophoric verb (except 'see'). With most non-logophoric predicates, *kiyala* functions as a complementizer as well as in a number of other forms. For example, *kiyala* has a number of complementing uses expressing various semantic relations like cause, condition, purpose, participle use, etc as illustrated below.

In (10), *kiyala* is semantically identical to *because* and hence the whole embedded clause shows a cause/reason.

- (10) Nimal roti kaeva kiyala bath kaeve naeha  
 Nimal roti ate COMP rice eat-E(PST) Neg  
 'Because Nimal ate roti, he did not eat rice'

Example (11) indicates the purposive use of *kiyala*.

- (11) Nimal lankaava ta enava kiyala amma cake haeduva  
 Nimal Lanka DAT come(PRS) COMP mother cake made  
 'As Nimal was coming to Lanka, mother made a cake.'

Example (12) shows the participle use of the verb *kiyanava* (say). Further it indicates that Sinhala complementizer *kiyala* has derived from and resembles the verb of speech *kiyanava*, 'say' which is still in use, and it has a participle use too, as shown in (12).

- (12) Ehema kiyala eya athurudan una  
 So said (PTCP) he/she vanish was  
 'Having said so, he/she vanished'

Another notable function of *kiyala* is as anaphoric reference, as in (13).

- (13) Issara kaale Nimal kiyala/\*bava kene-k ape game hitiya  
 Past time(LOC) Nimal kiyala/\*bava one-INDF our village(LOC) was  
 'In the past there was a person called Nimal in our village'

Rizzi (1997) observes that the temporal properties encoded by C are very rudimentary. For instance, in Italian, the complementizer *che* occurs with present, past, and future indicative, with present and past subjunctive, and, present and past conditional, thus distinguishing these forms from infinitival, gerundival,



and participial clauses, a situation which is quite general in Romance and Germanic. The *kiyala* complementizer, like *che* in Italian has a wide distribution as it occurs with tense forms, perfect participial forms, and stem-based forms. Tense forms indicate two tenses: non-past and past. Perfect participial forms and the stem-based forms lack this tense distinction. Stem-based forms show neither tense nor include the perfect participial morpheme –l. Table 1 illustrates these temporal properties (of the verb *kapanava* –‘cut’).

**Table 1: Verb Forms<sup>1</sup>**

<b>Tense Forms<sup>2</sup></b>	<b>verb- cut</b>
<b>Basic forms</b>	
non-past	kapanava
past	kaepuwa
<b>Emphatic forms</b>	
non-past	kapanne
past	kaepuwe
<b>conditional forms</b>	
non-past	kapatot
past	kaepuwot
<b>concessive forms</b>	
non-past	kapatat
past	kaepuwat
<b>Adjectival forms</b>	
non-past	kapana
past	kaepuwa

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<sup>1</sup> Adapted from Gair (1970), with slight modifications.

<sup>2</sup> Abesinghe (1990) divides the tense form as past and present. Also, his completed past corresponds to Gair’s (1970) perfect participle form.

<b>Prior temporal form</b> non-past past	----- kaepuaama
<b>Permissive form</b>	kaepuaawe
<b>Perfect participial forms</b>	
perfect participle	kapala
reduplicated form	kapa-kapa
perfect adjectival form	kapapu
perfective form	kapapi
<b>stem-based forms</b> (neither show tense, nor participle morpheme)	
hortative form	kapamu
volitive optative form	kapannan
involitive optative	kapaawi
Infinitive	kapanna
Contemporaneous	kapaddi

*Kiyala* occurs with most of the forms of all the three major groups listed in the Table—tense forms, perfect participial forms, and the stem-based forms. Of the tense forms, it occurs with basic, the emphatic, and the prior temporal form (14)-(16). Example (14) has the non-past verb which indicates present progressive (as Sinhala lacks a simple present). In (15), the verb ends in the suffix *-e*. This is effected by the focus marker ‘*tamai*’ in the embedded clause (see footnote 3). Example (16) has prior temporal form indicating ‘past’ action.

(14) Lalith kiuwa [Nimal gaha kapanava kiyala]

Lalith said(PST) [Nimal tree cut(PRS) COMP]

‘Lalith said that Nimal was cutting the tree’

(15) Nimal kiuwa [Mary tamai gaha kaepuwe<sup>3</sup> kiyala]

Nimal said [Mary Foc tree cut-**E(emph:pst)** COMP]

‘Nimal said that it was Mary who cut the tree’

(16) [Salli laebenne gaha kaepuaama kiyala] mama dannava

Money get-E tree cut (p temporal) COMP I know

‘I know that we will receive money only after the tree is cut’

Of the perfect participial forms of the verb, *kiyala* occurs with perfect participle and the perfective form (17)-(18). Whereas (17) indicates perfective aspect, what we have in (18) is ‘direct speech’.

(17) [Nimal gaha kapala kiyala] Ajith kiuwa

Nimal tree cut(PRF PTCP) COMP] Ajith said

‘Ajith said that Nimal has cut the tree’

(18) [Nimal gaha kapapi kiyala] Ajith kiuwa

Nimal tree cut(PRF) COMP] Ajith said

Ajith said that ‘Nimal cut the tree’

As for the stem-based forms of the verb, *kiyala* occurs with all of them- hortative, volitive, involitive, infinitive, and contemporaneous- (19)-(23). Example (19) indicates the hortative verb form. A notable characteristic of (19) is the person

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<sup>3</sup> The verb takes *-e* suffix when a constituent in the clause is marked for focus, moods evidentiality, epistemic, evaluative, interrogative, or when a constituent or whole proposition coming under the scope of NEG.

and number agreement between a 1<sup>st</sup> Person plural subject and the verb, which is often not manifested in colloquial Sinhala.

- (19) 'Api gaha kappa-mu' kiyala Nimal yojana-kara  
 We tree cut(HORT)-1PL COMP Nimal propose-did  
 'Let us cut the tree', Nimal proposed

Example (20) indicates willingness/commitment on the part of the speaker to perform a certain action.

- (20) 'Mama gaha kapannan' kiyala Nimal porondu-una  
 I tree cut(vol opt) COMP Nimal promise-did  
 'Nimal promised that he will cut the tree'

In example (21), we have a future/irrealis event in the embedded clause and *kiyala* is fine in the sentence. In the infinitive (22), the *kiyala* complementizer is optional. However, the number of matrix predicates that allow this option is very limited (we will discuss infinitive complements in Chapter 6).

- (21) [Nimal gaha kapaavi kiyala] Ajith hithuwa  
 [Nimal tree cut(involt opt) COMP] Ajith thought  
 'Ajith thought that Nimal will cut the tree' (irrealis)

- (22) Nimal [PRO gaha kapanna (kiyala)] thiiranaya-kara  
 Nimal [PRO tree cut(INF) (COMP)] decide-did  
 'Nimal decided to cut the tree'

Example (23) has the contemporaneous form of the verb which shows that the embedded action is not complete at the time of the matrix event. The *-e* of the embedded predicate indicates a contrastive function of 'only'

- (23) Nimal [Mary aave gaha kapaddi kiyala] daenagatta  
 Nimal [Mary came-E tree cut(contemp) COMP] knew  
 ‘Nimal knew that Mary came when the tree was being cut’ (not before or after that)

Example (24) shows that *kiyala* can occur with the root modal indicating ability.

- (24) Nimal [Mary-ta rasata uyanna puluwan kiyala] dannava  
 Nimal [Mary-DAT tastily cook(INF) can COMP] know  
 ‘Nimal knows that Mary can cook well.’

As the preceding examples indicate, the complement clause of *kiyala* may have a full structure of a main clause with temporal, aspectual, and agreement properties and mood distinctions. Consequently, *kiyala* should occupy a sufficiently higher position in the clause structure. In terms of inflection, *kiyala* can be inflected as *kiyala-th* (*kiyala-too*) (25). However, compared with the other three complementizers, the inflection potential of *kiyala* is limited only to the above inflected form (discussed further in 2.4).

- (25) [Eya gedara yanava kiyala-th] mama dannava  
 [He home go(PRS) COMP-too] I know  
 ‘I know his going home too’ (in addition to some other things he will be doing)

Gair (1970, 1998) lists *kiyala* as the quotation marker in Sinhala which semantically marks a preceding form as a thought, supposition, quotation,

hypostasis, or attributed name. Gair does not attempt to identify its syntactic position in the clausal architecture, as *kiyala* is peripheral to his discussion.<sup>4</sup>

Kariyakarawana, (1998) lists *kiyala* and *bava* as complementizers and identifies their structural position as the highest in the left periphery above the focus head. However, he also lists a number of other particles such as *nang* ‘if’, *lu* ‘they say’, *venna aethi* ‘may/might be’ as sentential complementizers that have a similar distribution as *kiyala/bava* (26). He also does not make a distinction between *kiyala* and *bava*. (Kariyakarawana 1998: 99, 33 a).

- (26) Guneee kolamba yanava nan/ kiyala/ lu/ venna aethi  
 Gune Colombo go-PRES if / that / they say/ may/ might be  
 ‘If /That/They say that/It may/might be that Gunapala goes to Colombo...’

Henadeerage (2002), in his study of Sinhala syntax, does not offer a comprehensive discussion of complementizers in Sinhala. He identifies both

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<sup>4</sup> Gair (1998) also uses the following forms as complementizers. (Gair 1998: 56, 57: 30-32)

a) *-kota*, as in (i)

- (i) Ee vaeda tamai karana **kota** mama sathutu venne  
 That work EMPH do-REL **COMP** I happy become-non-past-E  
 ‘?It is that work that I become happy when I do’

b) *-kan*, as in (ii)

- (ii) Kau-da ena **kan** oya mehema inne  
 Who Q come-rel **COMP** you like this stay-non-past-E  
 ‘?Who is it that you are waiting like this until (they) come?’

c) *hinda*, as in (iii)

- (iii) Kaapu **hinda** lamayage bada ridenne monava da  
 Eat-PPL-REL **COMP** child-GEN stomach ache-non-past-E what Q  
 ‘?What did the child’s stomach ache because he ate?’

Abstracting away from the grammatical judgments of the above examples, I would categorize *kota*, *kan*, and *hinda* as conjunctive particles and do not consider them further here.

*kiyala* and *bava* as complementizers that occupy a clause final position. But he does not differentiate between them.

Wheeler (2005) examines the relation between Sinhala complementation system and Givon's (1980) binding hierarchy. He examines in what ways Sinhala complement system corresponds to the binding hierarchy and how it diverges from it. His study too does not attempt an analysis of the *kiyala* and *bava* complementizers in terms of their distribution, inflection or feature composition.

*Bava*, *Vaga*, and *Viththiya* have not received any attention in the literature as quote markers and or complementizers. Gair (1970, 1998) has made no reference to *bava*, *vaga*, and *viththiya*, either as quote markers or as adpositions, or adverbials etc. Similarly, Kariyakarawana (1998) too does not refer to *vaga* and *viththiya* as complementizers in his study. A notable property of these complementizers is that they have a relatively restricted distribution as they occur only with some tense forms and participial forms. Of the tense forms of the verb, they occur with adjectival forms (27) and the prior temporal form (28). They do not occur with any of the stem-based forms. All these three complementizers (*bava*, *vaga*, *viththiya*) are in complementary distribution (with variation restricted to idiolect and dialect forms).

(27) [Nimal gaha kapana bava] mama dannava

[Nimal tree cut(ADJ) COMP] I know

'I know that Nimal is cutting/will cut the tree'

(28) [Salli laebenne gaha kaepuaama bava] mama dannava

Money get-E tree cut (p temporal) COMP] I know

'I know that we will receive money only after the tree is cut'

Of the perfect participial forms of the verb, *bava*, *vaga*, *viththiya* occur with the perfect adjectival form<sup>5</sup> (29).

- (29) Mama dannava Nimal gaha kapapu bava  
 I know Nimal tree cut(PRF ADJ) COMP  
 'I know that Nimal has cut the tree'

The temporal properties of the verb and the relation between the complementizers, *kiyala*, *bava*, *vaga*, *viththiya* are summarized in Table 2.

**Table 2: Temporal properties of the verb and the complementizers**

Tense Forms	verb- cut	<i>kiyala</i>	<i>bava</i> <i>vaga</i> <i>viththiya</i>	Example*
<b>Basic forms</b> non-past past	kanava kaepuwa	✓ ✓	x x	[Nimal gaha kanava kiyala] mama [Nimal tree cut COMP] I dannava know 'I know that Nimal is cutting the tree'
<b>Emphatic forms</b> non-past past	kanne kaepuwe	✓ ✓	x x	[gaha kanne Nimal kiyala] [tree cut-E Nimal COMP] mama dannava I know 'I know that it is Nimal who is cutting the tree'

<sup>5</sup> For some speakers, the perfect participle form is fine with *vaga*, and *viththiya* (not with *bava*). The following examples illustrate this contrast.

- (i) Mama dannava Nimal gaha kapala vaga/viththiya  
 I know Nimal tree cut(prf ptcp) comp  
 'I know that Nimal has cut the tree'
- (ii) ??Mama dannava Nimal gaha kapala bava  
 I know Nimal tree cut(prf ptcp) comp  
 'I know that Nimal has cut the tree'

I leave this aside as this is purely dialectal and also there is no consensus among the speakers about this.



<b>conditional forms</b>				
non-past	kapatot	x	x	
past	kaepuwot	x	x	
<b>concessive forms</b>				
non-past	kapatat	x	x	
past	kaepuwat	x	x	
<b>Adjectival forms</b>				kapana gaha- cut tree (tree being cut: adjective use of cut)
non-past	kapana	x	✓	[Nimal gaha kapana bava]
past	kaepuwa	x	✓	[Nimal tree cut(adj) COMP] Mama dannava I know 'I know that Nimal is cutting the tree'
<b>Prior temporal form</b>				[salli laebenne gaha kaepuaama money get-E tree cut (p temporal) kiyala/bava] mama dannava COMP I know 'I know that we will receive money only when the tree is cut'
non- past	-----			
past	kaepuaama	✓	✓	
<b>Perfect participial forms</b>				
perfect participle	kapala	✓	x	Nimal [gaha kapala kiyala] Nimal [tree cut(PTCP) COMP] Mama dannava I know 'I know that Nimal has cut the tree'
reduplicated form	kapa-kapa	x	x	
perfect adjectival form	kapapu	x	✓	kapapu gaha- cut tree (tree that has been cut: adjectival use)  Nimal [gaha kapapu bava] mama dannava Nimal [tree cut (adj) COMP] I know 'I know that Nimal has cut the tree'
perfective form	kapapi	✓	x	['Nimal gaha kapapi' kiyala] Amma kiuwa ['Nimal tree cut(PERF) COMP] mother said 'Nimal cut the tree' mother said

stem based forms (neither show tense, nor participle morpheme - l)				
hortative form	kapamu	✓	x	[‘api gaha kapamu’ kiyala] Nimal kiuwa [‘we tree cut(HORT) COMP] Nimal said Nimal said that ‘let us cut the tree’,
volitive optative form	kapannan	✓	x	[mama gaha kapannan kiyala] Nimal kiuwa [I tree cut(VOL) COMP] Nimal said ‘Nimal said that he will cut the tree’ (commitment)
involitive optative	kapaawi	✓	x	[Nimal gaha kapaawi kiyala] Ajith kiuwa [Nimal tree cut(inv) COMP] Ajith said ‘Ajith said that Nimal will cut the tree’ (future/irrealis)
Infinitive	kapanna	✓	x	Nimal gaha kapanna (kiyala) thiiranaya kara Nimal tree cut (inf) (COMP) decide did ‘Nimal decided to cut the tree’
contemporaneous	kapaddi	✓	x	Nimal kiuwa [Mary aave gaha kapaddi kiyala] Nimal said [Mary came-E tree cut(cont) COMP] ‘Nimal said that Mary came when the tree was being cut’ (not before or after)

\*The examples with *bava* are fine for *vaga* and *viththiya* too.

*Bava*, *vaga*, and *viththiya* seem to pattern together in terms of c-selection, inflection and distribution, and therefore seem to form a separate class. Even within this sub class, *bava* is unique as it is more restricted to literary Sinhala and even in speech to very formal utterances selecting formal predicates. However, when compared to *kiyala*, they show further distributional differences. For example, *bava/vaga/viththiya* cannot occur with the question marking particle *-da* (Q), as illustrated in (30) and (31).

- (30) Nimal [kau-da aave? kiyala] aehuwa  
Nimal [ who-Q came-E? COMP] asked  
‘Nimal asked who came?’

- (31) \*Nimal [kau-da aapu bava/vaga/viththiya?] aehuwa  
 Nimal [ who-Q come(PTCP) COMP] asked  
 'Nimal asked who came?'

Table 3 summarizes the distributional differences and selectional restrictions that the above complementizers are subject to: Over the next sections, I investigate each of these properties in further detail.

**Table 3: Complementizer Distribution**

Properties	<i>kiyala</i>	<i>bava</i>	<i>vaga</i>	<i>Viththiya</i>
Structural position: clause finally	✓	✓	✓	✓
May be inflected	✓	✓	✓	✓
C-selects many forms of the embedded verb	✓	x	x	x
Has a number of complementing uses expressing various semantic relations like cause, condition, purpose, participle use	✓	x	x	x
Has anaphoric reference	✓	x	x	x
Can occur with Wh+Q (-da) in the embedded clause	✓	x	x	x

### 2.3 Selection of Sinhala Complementizers

One notable property of the Sinhala complementizers is that their selection indicates a Head-Head relation. The higher predicate determines whether it is *kiyala* or *bava/vaga/viththiya* that heads the complement clause. In discussing the selectional restrictions between matrix verbs and embedded clauses, Chomsky (1981) observes that matrix verbs differ with regard to complements they take: declarative or interrogative, finite or infinitival. The selection of the clausal complement is determined by the lexical property of the matrix predicate. For example, he argues that the verb *prefer* as an inherent lexical property selects a

clausal complement with an Infl that is specified for [+/- Tense]. This determines whether the clause is finite or infinitive. This also reflects the relation between Comp and Infl: *that-tense*, *for- to* etc.

### 2.3.1 Head-Head Selection

Table 4 illustrates the c- selectional requirements between the higher predicate and the complementizer.

**Table 4: C-selection**

Predicate info	comp	Example
<i>regret, persuade</i> <i>fear, threaten, order,</i> <i>command, think</i>	<i>kiyala</i>	Nimal kanagaatu-una [Ravi vibhage fail-una <i>kiyala</i> ] Nimal regret -was [Ravi exam fail-was COMP 'Nimal was sad that Ravi failed the exam'  Nimal kanagaatu-una [Ravi vibhage fail-una Nimal regret - was [Ravi exam fail-was(PTCP) <b>*bava/vaga/v..]</b> <b>*Comp</b> 'Nimal was sad that Ravi failed the exam'
Predicates that select only <i>bava/vaga/viththiya</i> <b>NO SUCH PREDICATES</b>		
<i>show, recognize,</i> <i>discover,</i> <i>find, forget, remember,</i> <i>know, understand,</i> <i>believe, say/tell, report,</i> <i>promise, suspect</i>	<i>kiyala,</i> <i>bava,</i> <i>vaga,</i> <i>viththiya</i>	Nimal soyagatta [Ravi vibhage fail-una <b>kiyala</b> ] Nimal found out [Ravi exam fail-was COMP] 'Nimal found out that Ravi failed the exam'  Nimal soyagatta [Ravi vibhage fail-una Nimal found out [Ravi exam fail-was - (PTCP) <b>bava/vaga/vith..]</b> COMP] 'Nimal found out that Ravi failed the exam'
Predicates that do not C-select either <i>kiyala</i> or <i>bava/vaga/viththiya</i> :  <i>see, hear, notice, smell</i> <i>like, love, try, prefer,</i>	none	Mama daekka [Nimal enava] I saw [Nimal come (PRS)] 'I saw Nimal coming'  <b>*Mama daekka [Nimal enava *kiyala]</b> I saw [Nimal come (PRS) <b>*COMP</b> 'I saw that Nimal was coming'

<i>describe</i>		*Mama daekka [Nimal ena I saw [Nimal come(PTCP) COMP] 'I saw that Nimal was coming'	<b>*bava/vaga/viththiya</b>
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The C-selection pattern shown in Table 4 motivates a discussion along the factive-propositional lines. Kiparsky and Kiparsky (K&K) (1970) observe that the predicates '*regret, grasp, comprehend, take into account/consideration, ignore, make clear, forget, deplore*' are factive, whereas '*suppose, assert, allege, assume, claim, maintain, believe, conclude, fancy, conjecture*' are not. However, the Sinhala facts resist the K&K categorization, as only a few predicates hold this distinction for Sinhala. For example, in Sinhala, both *regret* and *think* select *kiyala*, the propositional complementizer. However, in K&K's predicate selection, *regret* is factive whereas *think* is non-factive. Similar observations hold for *forget, know, understand*, which are factive, and *believe, say/tell* which are non-factive in K&K's analysis respectively.<sup>6</sup>

More noteworthy in the table is the fact that the majority of cases, both factive and non-factive predicates freely select *kiyala/bava/vaga/viththiya*. In other words, both groups select *kiyala* and *bava* complementizers and therefore align with

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<sup>6</sup> The predicates in the last group in Table 4—*see, hear, notice, smell*—indicate perception through senses and could be inherently factive; but they do not occupy a place in K&K's predicate selection. In Sinhala too, these predicates of perception do not select a complementizer. Rather, these predicates align more with Dixon's (2006) classification of predicates of ATTENTION TYPE. Predicates, "see, hear, notice, smell, and show" select a (participial) Activity complement clause (of continuing action), such as the one below.

- (i) Mama daekka [Nimal enava]  
I saw [Nimal come (PRS)]  
'I saw Nimal coming'

The other predicates in the same group that do not select a complementizer (like, love, prefer, and fear) fall into Dixon's LIKING TYPE: Predicates that subcategorize for an Infinitive complement clause, as shown below.

- (ii) Mama geya-k hadanna kaemathi  
I house-INDF make(INF) like(PRS)  
'I like to build a house'

*remember, report, suspect* as the predicates that select either a factive or a propositional complement in K&K's analysis. At the same time, a one-way correlation is also observed from the fact that there are no predicates that exclusively select *bava/vaga/viththiya*—the propositional complementizer *kiyala* applies across the board while the other complementizers have a relatively restrictive distribution. Later in this discussion, I will use this correlation to conclude that the *kiyala* complementizer heads propositional complements whereas *bava* is associated with factivity.

### **2.3.2 Selection and Finiteness**

The selection of a particular complement is largely determined by the inherent lexical properties of the selecting predicate. Thus, factive- non-factive, finite-non finite, declarative-interrogative nature of the complement clause are some of the distinctions that can be attributed to lexical properties of the predicate. In other words, this indicates the relation between a predicate, tense, and a complementizer. For example, in English, the predicate *think* selects a finite clause headed by the '*that*' complementizer, and the predicate *expect* selects a non-finite clause headed by '*for*'.

Before we proceed, we need to clarify the distinction between *kiyala* and *bava/vaga/viththiya* in terms of their temporal and finiteness properties. Rizzi observes that finiteness is a valid linguistic one, even though its morphological realization is subject to cross-linguistic variation. As languages tend to split verbal paradigms into two classes of forms, Rizzi claims that finite forms can manifest mood distinctions, tense and subject (person) agreement, and co-occur with overt nominative subjects. This class of verbs co-occurs with the complementizers of the *that* kind.

In the absence of agreement properties in Sinhala, we are left with tense, independent occurrence (a propositional structure/assertion), mood distinctions, co-occurrence with overt nominative subjects etc. as the determining criteria. Although Table 1 lists a number of verb forms under the general category ‘tense forms’, only the ‘basic form’ has the tense distinction:- non-past/past (32)-(33).

(32) Nimal gaha kapanawa  
 Nimal tree cut(PRS)  
 ‘Nimal is cutting the tree’

(33) Nimal gaha kaepuwa  
 Nimal tree cut(PST)  
 ‘Nimal cut the tree’

With *kiyala* occurring with the basic form, it fulfills both the temporal and propositional/assertion diagnostics. Its occurrence with the other verb forms that inflect for mood distinctions, and its co-occurrence with the nominative subject confirm the finiteness properties of the *kiyala* complement. Hence, the feature composition of *kiyala* should be [+Tense] and [+Finite]<sup>7</sup>.

However, we cannot expect the same feature composition for *bava/vaga/viththiya* which selects only the adjectival and prior-temporal forms of the verb, neither of them is [+Tense]. *Bava/vaga/viththiya* seem to be very careful in their predicate selection, as they avoid tensed complements. Hence a finite inflection usage of the embedded predicate is ungrammatical (34).

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<sup>7</sup> This will be modified later in Chapter 6

- (34) \*Nimal daenum-dunna [eya gaha \*kapanava bava/vaga/viththiya]  
 Nimal inform-gave [he tree \*cut(PRS) COMP]  
 'Nimal informed that he was cutting the tree'

A rather peculiar property of the perfect participle verb of Sinhala is that it can occur in an independent clause (35). However, note that, although *bava/vaga/viththiya* select only the participial verb forms, they avoid the perfect participle (36).

- (35) Nimal gaha kapala  
 Nimal tree cut(PRF PTCP)  
 'Nimal has cut the tree'

- (36) \*Ajith kiuwa [Nimal gaha kapala bava/vaga/viththiya]  
 Ajith said [Nimal tree cut(PRF PTCP) COMP]  
 'Ajith said that Nimal has cut the tree'

Therefore, in order to maintain a distinction between the distinct temporal properties encoded in *kiyala*, and the rather less distinct temporal properties of *bava/vaga/viththiya*, I conclude that T in this latter complement type is participial.

Now the question arises whether the complements of *bava/vaga/viththiya* are [-Finite] as well. The distributional facts show otherwise. The predicates that occur with these complementizers seem to select their own phonological subjects and case mark them, just as the matrix predicates do (37).

- (37) Mata [Nimal gaha kapapu bava] amataka una  
 I-DAT [Nimal tree cut(ADJ PTCP) COMP] forget was  
 'I forgot that Nimal has cut the tree'



With the above observation, I conclude that the complementizers *bava/vaga/viththiya* are [+Finite]. Hence, their feature composition is [+Participial], [+Finite].

### 2.3.3 The C- domain in Sinhala Complementizer

The discussion here is restricted to a study of the distribution of topic and focus vis-à-vis C s; I return to a fuller discussion of these discourse/information structure phenomena in Chapter 4.

- a) Matrix predicates that allow either embedded topic or focus with *kiyala* complementizer :

Regret, persuade, fear, threaten, order, command, show, recognize, discover, find, think, forget, remember, know, understand, believe, say/tell, report, promise, suspect

- (38) Nimal kanagaatu una [Ravi tamai ee vaede kare kiyala]  
Nimal regret was [Ravi FOC that work did-E COMP]  
'Nimal was sad that it was Ravi who did that work'

- (39) Nimal kanagaatu una [Ravi nang vibhage fail-veevi kiyala]  
Nimal regret was [Ravi TOP exam fail-IRRL COMP]  
'Nimal regretted/was sorry that as for Ravi, he might fail the exam'

- b) Predicates that allow embedded top/foc with *bava/vaga/viththiya*:

No such predicates<sup>8</sup>

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<sup>8</sup> Predicates 'know', 'got to know' 'understood' etc allow an embedded constituent marked for topic mostly when the matrix subject is 1<sup>st</sup> person, and also when the embedded predicate is stative. Native speaker judgment too varies in this regard (I leave this aside here).

- c) Predicates that allow both topic and focus simultaneously with *kiyala* complementizer: (order: Top > Foc): threaten, know, understand, believe, say/tell, report, remember, forget
- (40) Nimal visvaasa kara [Mary-ta nang Ravi tamai gaelapenne kiyala]  
 Nimal believe did [Mary-DAT TOP Ravi FOC suit-E COMP  
 ‘Nimal believed that as for Mary, it was Nimal who suited her’
- d) Predicates that select both matrix topic/focus and embedded topic/focus:  
 No such predicates

### **2.3.4 What the distributional facts reveal about Sinhala complementizers**

#### **2.3.4.1 Kiyala**

The information provided in the preceding subsections reveal the status of *kiyala* complementizer in terms of being selected by the higher predicate, the verb form, occurrence with embedded topic/focus, and complement selection. As noted above, *kiyala* can be selected by any predicate without selectional restrictions as to the type of the predicate.

As the topic/focus diagnostics highlight, *kiyala* is the only complementizer that can occur with embedded topic/focus. *Kiyala* may be postulated to be the lexicalization of Rizzi’s Force head. However, before we make that move, we first need to grapple with the quotative import of *kiyala*.

As we have already observed, a complement clause with *kiyala* shows that the speaker is not committed to the truth of the embedded proposition. The speaker is merely reporting the event to whose truth there is no commitment (41).

(41) Nimal kiuwa [Ravi caareka seeduwa kiyala]

Nimal said [Ravi car washed COMP]

‘Nimal said that Ravi washed the car.’

Recall that *kiyala* is in origin a verb of speech. Historically, when such verbs have developed into C°, they serve as quote markers. For example, Meenakshi (1986) holds that the quotative in Indo-Aryan and of many Dravidian languages has derivational roots to Sanskrit *iti*. She observes that *iti* of Old-Indo-Aryan (OIA) has completely disappeared in Middle Indo-Aryan (MIA), and new forms have been acquired by these languages. Modern Indo-Aryan languages use two different kinds of forms such as Hindi *ki* and *aisa*, Gujarati *ke* and *em*, Bengali *je* and *boliye*. Meenakshi further maintains that “not only in the position of its occurrence, but also in the formation of the new marker itself, one finds a striking similarity between the Dravidian languages and some Indo-Aryan languages, e.g. Marathi *mhanun* and Bengali *bole*. Both these morphemes are participles from the verb ‘to say’.

Bayer (1998) also concludes that final complementizers in South Asian languages are mainly derived from verbs of speaking that have undergone semantic bleaching and that they are traditionally called quotatives because they seem to set the preceding discourse in quotes. He provides evidence for such complementizers, *ani* (Telugu), *endru* (Tamil), *anta* (Kannada), *enna* (Malayalam), *bole* (Bengali), *boli* (Oriya), *buli* (Assamese), that denote the past-participle form of a verb of speaking in most cases, whereas some others are semantically identical to ‘thus’ or ‘so’ (*asa-* Marathi). Further, he maintains that “it is suggestive that final morphemes with the meaning ‘thus’, ‘so’ or a semantically bleached verbum dicendi are an areal phenomenon on the Indian subcontinent

that covers not only Sanskrit and many modern Indo-Aryan languages but also Dravidian” (Bayer: 239).

In a study on quote markers and complementizers, Klammer (1999) too discusses how in many languages of the world, verbs reporting speech, thoughts, and perceptions grammaticalise into quote markers and, and/or complementizers. Her study focuses on two Austronesian languages, *Tukang Besi* and *Buru*. She analyses the change of the items *kua* and *fen*, originally full lexical report verbs that have become quote markers and complementizers through semantic bleaching. She attributes this semantic bleaching that results in the loss of argument structure to a mismatch between surface syntax and lexical argument structure. She argues that this mismatch results in a violation of universal constraints on semantic transparency and structural simplicity which make the report verb lose its arguments. Its interaction with particular surface syntactic constructions contributes to this V to C grammaticalisation.

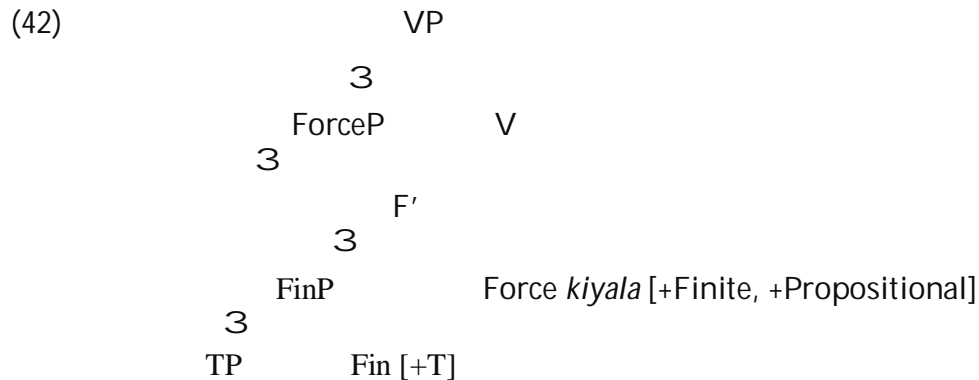
Finally, Speas and Tenny (2004) in their study of configurational properties of point of view roles refer to the quotative mood as encoding the property of distance on the part of the speaker from the information being reported. They propose that quotative (reportative) is located in a lower evidential mood. However, they observe that in some languages, quotative is part of a mood paradigm. Since quotative mood is used when the speaker wishes to distance him/herself from the information being reported, they propose that quotative mood can be realized in an expletive in the specifier of the speech act projection. This is synonymous with speaker’s (abstract) absence from the speech act, for whose truth he/she is not committed. This also captures the quotative mood realization in English with the ‘it’ expletive.

The Sinhala functional category *kiyala* shares a number of properties with the above proposals and hence merits analysis along the same lines, perhaps as in Speas and Tenny (2004), by which *kiyala* is merged at a lower evidential projection. However, such an analysis is not possible for two reasons. First, evidentiality is a root phenomenon in Sinhala, overtly marked by the particle 'lu'. Further, Speas and Tenny's proposals are pertaining to the root clause, in particular, to the grammaticalization and projection of pragmatic roles. Also, we need to capture both the discourse-related and finiteness-related interface properties of *kiyala*. Therefore, I propose that, as *che* in Italian, *kiyala* occupies Rizzi's Force head. It functions as a subordinator with an interpretable semantic content of reporting. It makes the proposition in its scope a report from whose truth the speaker wishes to distance himself/herself. *Kiyala* carries the illocutionary force of the embedded proposition.

In doing so, I make a distinction between illocutionary force and clause type along the lines proposed by Portner (2009). According to his analysis, illocutionary force is the type of communicative act which the speaker intends on a particular occasion: This is a pragmatic phenomenon having to do with the speaker's communicative intentions. Clause types, on the other hand, include categories of declarative, interrogative and imperative, as well as other minor types.

A Force analysis of *kiyala* as the Sinhala quotative occupying the Force position of Rizzi has a number of advantages. First, it does not involve projection of new structure but makes use of existing structure of the left periphery. Second, by merging *kiyala* in Force, we predict that *kiyala* complements are full CPs, i.e., they should be able to accommodate topic and focus projections. This prediction is already verified by the preceding facts. Further, this move captures the

difference between Speech act mood and other modalities. In the case of Sinhala, this means that the root C determines the speech act mood/clause type, whereas the embedded Force (*kiyala*) indicates the pragmatic force (42).



#### 2.3.4.2 *bava/vaga/viththiya*

Given that *vaga* and *viththiya* are quite colloquial/dialectal and hence occur marginally in speech, I will concentrate on the discussion of the *bava* complementizer to begin with.

Recall that *bava* has a restricted distribution both in terms of the embedded verb form and the matrix predicate type with which it can occur. The embedded verb form is restricted to the participial/adjectival, whereas matrix predicates like *threaten*, *order*, *command*, *persuade* etc do not select *bava*. Nevertheless, we have already observed that this restricted distribution does not make the *bava* complementizer a non-finite clausal head. Although it is participial for Tense, based on some other criteria, we determined that *bava* complements can be as syntactically finite as those of *kiyala*, an observation that also holds true for *vaga* and *viththiya*.

What distinguishes *bava* from *kiyala* and the other complementizers—the answer appears to be factivity. The Sinhala predicates such as ‘fear’, ‘regret’, which do

not select *bava* are of epistemic/deontic nature. *Bava* with ‘think’ is also not preferred by native speakers of Sinhala, once again showing its distance from epistemic modality. This is evident in an example where *bava* and the Sinhala nominalizer *eka* (one) are in complementary distribution, as illustrated in the contrast between (43) and (44). Example (43) refers to the ACT of Nimal’s selling, while example (44) refers to the FACT of Nimal’s selling, and hence is odd with the matrix adjectival predicate.

- (43) [Nimal kaareka vikunana eka] narakai  
 [Nimal car sell(PTCP) NMLZ] bad  
 ‘Nimal’s selling the car is bad’

- (44) \*[Nimal kaareka vikunana bava] narakai  
 [Nimal car sell(PTCP) COMP] bad  
 ‘Nimal’s selling the car is bad’

However, the sentence improves with a predicate such as ‘know’, ‘got to know’, as in (45).

- (45) [Nimal kaareka vikunana bava] mama dannava  
 [Nimal car sell(PTCP) COMP] I know  
 ‘I know that Nimal is going to sell the car’

The most crucial evidence for the factivity of *bava* is the interpretive difference. In the discussion of *kiyala*, we observed that *kiyala* is associated with quotative/epistemic illocutionary force. With *bava*, however, the speaker commits himself/herself to the truth of the embedded proposition in using *bava* complementizer. Furthermore, the complements are also distinguished by a difference in ‘size’— given that *bava* complements disallow topic and focus projections, they must be ‘smaller’ than *kiyala* ones.

Extraction facts also support the factivity phenomenon. Though it cannot be conclusively determined whether factive complements are strong islands for extraction, still native speaker preferences indicate so. Examples (46) and (47) illustrate this.

- (46) kauda oyaa-ta hamuune kiyala mataka ?  
 Who you-DAT met-E COMP remember  
 'Who do you remember that you met?'

- (47) ? kauda oyaa-ta hamuuna bava mataka?  
 Who you-DAT meet(PTCP) COMP remember  
 'Who do you remember that you met?'

The extraction from the *bava* complement is ungrammatical with a predicate such as 'regret' (48), while it is fine with the *kiyala* complement (49).

- (48) \*Kauda oyaa hamuuna bava kanagaatu-wenne?  
 Who you meet(PTCP) COMP regret-Be-E  
 'Who do you regret that you met?'

- (49) Kauda oyaa hamuunaa kiyala kanagaatu-wenne?  
 Who you met COMP regret-Be-E  
 'Who do you regret that you met?'

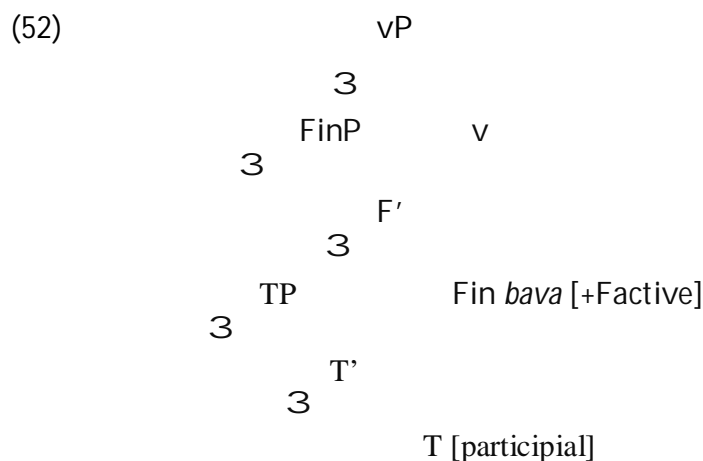
Adjunct extraction from a *kiyala* clause is fine (50), whereas the same from a *bava* clause is odd (51), showing that *bava* complements are weak islands (however, native speaker judgments vary in this regard).

- (50) Kiiyata vitara-da oyaa-ta Mary-va hamuunaa kiyala mataka?  
 When about-Q you-DAT Mary-ACC met COMP remember  
 'Around what time did you meet Mary that you remember?'



- (51) ?? Kiiyata vitara-da oyaa-ta Mary-va hamuuna bava mataka?  
 When about-Q you-DAT Mary-ACC meet(PTCP) COMP remember  
 'Around what time did you meet Mary that you remember?'

The above diagnostics and examples show the properties of *bava* complementizer in terms of factive information it carries, higher predicate type that selects *bava*, embedded verb form, and co-occurrence with topic/focus. Most crucially, the topic/focus asymmetry and factivity highlight that *bava* should occupy a different structural position from *kiyala*. I propose, as *di* in Italian, *bava* occupies the Fin(ite) position of Rizzi's left periphery.



Rizzi (1997) proposes that C head encodes two types of information: Clause type and information related to finiteness, which he proposes are represented by two distinct heads, Force and Finiteness. Force head is more peripheral, and types the clause as imperative, declarative etc. The Fin head is more central and determines the finiteness properties of the embedded clause (TP). According to Rizzi, complementizers lexicalize both these categories and he provides evidence from Italian to show the distinctiveness of each head. Force and Finiteness are fused in one head, but in the case of a topicalization, fronted focus or Wh, the C-head splits.

(53) Force..... (Topic)..... (Focus).....Finite IP

Sinhala clause with the *bava* complementizer displays the properties of finiteness, and more importantly, factivity. That these properties are not unique to Sinhala is evident if we look at some cross linguistic evidence. Rizzi (1997) observes that in addition to finiteness, which is the core IP related characteristic that the C-system expresses, there can be additional IP information too that the C-system encodes. Languages can vary in this regard. Some such additional information that the C-system encodes are mood distinctions (Polish), subject agreement (different Germanic varieties), tense distinctions (Irish) etc. (Rizzi 97, 284). In Sinhala, the *bava* complementizer as the Fin head encodes factivity too in addition to some of these other properties. Further, in Rizzi's C-domain, there aren't any Top/Foc projections below Fin. In the case of Sinhala too, embedded topic/focus with the *bava* complementizer is not allowed. This shows that Fin and the TP form a tighter unit as it is the case in Italian<sup>9</sup>.

The consequences of the above analysis of *bava* as Fin are the observations that in Sinhala, (i) there is a distinct complementizer that introduces factive complements, (2) factivity is not a property of the verb alone, but of the complementizer: (3) factive complements are of the nature FinP, and, (4) *bava* complements are impoverished in terms of discourse/pragmatic information. In the next subsection, I provide evidence to prove that all these observations are not isolated incidents and that there are languages that claim to have distinct

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<sup>9</sup> Though there are no topic/focus projections below Fin in Sinhala, the whole embedded clause can be topic marked, as illustrated below.

- (i) Nimal      [Ravi      kareka      vikunapu      bava]      nang      kiuwa  
      Nimal      [Ravi      car      sell(PERF ADJ)      COMP]      TOP      said  
      'Nimal said that Ravi sold the car' (Nimal did not say anything else)

As the interpretation suggests, the embedded proposition is topic marked by the matrix topic projection. Therefore, it has no impact for the Fin proposal for *bava*.

complementizers for factivity. Also I show that the analysis of factive complements to be of the nature FinP and that the embedded complements are impoverished are not without precedent.

### **2.3.5 *Fin***

Anna Roussou (1993) shows that the two complementizers in Modern Greek (MG), 'pu' and 'oti' correspond to the English complementizer 'that'. 'Oti' mainly introduces sentential complements. However, the distribution of 'pu' is comparatively wider as it occurs in relative clause formation, cleft constructions, and matrix exclamatives as well. Of the two complementizers, 'pu' introduces factive complements, while 'oti' is used with non-factives. She supports this view with evidence from extraction of adjuncts and arguments. She shows that the factive complementizer 'pu' does not allow extraction of either arguments or adjuncts thereby attesting for the strong Islandhood involved. In order to account for this phenomenon, she argues that 'pu' possesses the feature [+definite], and, factive complements have an empty operator in [Spec, C]. She also refers to further examples of languages where distinct complementizers encode factivity/non factivity. Yiddish selects the complementizer 'vos' for factive complements and relative clauses, while for non factives, it selects the complementizer 'az'. Serbo-Croatian selects the complementizer 'sto' for factives and relatives, whereas 'da' is for the non factive complements.

It is evident that Sinhala too patterns with Modern Greek in terms of complementizer selection for factive complements. The *bava* C° shows a parallel with 'pu' in MG. The interpretive differences with *kiyala* and the diagnostics for Islandhood observed in the preceding sections establish this fact. As a consequence, we are led to the theoretical possibility that factivity is not a

property of verbs alone. Although this contradicts the general observation that the truth of the complements to factive predicates is presupposed, evidence from MG also corresponds to the observation made for Sinhala.

This is not to claim that *bava* and *pu* are strictly similar. *Bava* differs from the ‘*pu*’ factive complementizer of MG in a number of respects. For example, unlike ‘*pu*’, *bava* is not a nominalizer. That is, in the case of Sinhala, it is the adjectival verb form that attributes modification rather than *bava*. Relative clause formation in Sinhala provides evidence for this, as shown in (54).

- (54) Haemadaama vaeda-ta yana miniha  
 Everyday work-DAT go(ADJ PTCP) man  
 ‘Everyday going to work man/Man who goes to work everyday’

Further, Sinhala has a distinct nominalizer ‘*eka*’ (one), as shown in the preceding section, which is used with participle/adjectival predicates (55).

- (55) [Nimal mage potha vivechanaya karapu **eka**] vaeradii  
 [Nimal my book criticism do(PTCP) **NMLZI**] wrong  
 ‘Nimal’s criticism of my book is wrong’ (the act of criticism is wrong)

Another distributional difference of Sinhala *bava* with ‘*pu*’ in MG is that *bava* does not occur in either cleft constructions or matrix exclamation clauses. The three differences observed hitherto, namely, relative clause construction, cleft, and matrix exclamations are associated with an empty operator in [Spec, C] in the standard analysis of such constructions. The non-occurrence of *bava* in all three together with the fact that Sinhala has a distinct nominalizer show that the [+definite] feature and empty operator analysis proposed for MG does not capture the properties of Sinhala *bava* complement.



Haegeman's proposal of a reduced functional layer for the factive complements sharply contrasts with that of Barbiers (2002). Barbiers provides empirical support from Dutch for the claim that propositional complement clauses are not phases whereas factive complements are phases. His argument is based on the presence/absence of the [Force] feature which determines phasehood and EPP. According to his analysis, the difference between factive and propositional complement clauses is that the factive clauses have a ForceP projection dominating CP, while the propositional clauses are just CPs. This makes a ForceP a phase and its head can be assigned an EPP feature, triggering movement to its left periphery. As propositional complement clauses are CPs, and therefore, Force-defective, they lack the EPP feature, thereby not allowing movement to their specifier.

Complement type selection is a property of the matrix verb: in particular, a factive predicate selects a ForceP, whereas a propositional predicate such as 'think' selects a CP. These phenomena account for a number of asymmetries between the two types of clauses in terms of Wh movement, focus/topic movement, long answer scrambling, and remnant stranding. Propositional clauses do not allow embedded Wh movement, even in partial Wh movement cases. They also do not allow topic/focus movement. Factive ForceP [+Q] complements allow Wh movement, focus/topic to their specifier. On the other hand, long answer scrambling and remnant stranding are allowed from propositional clauses but not from factive complement clauses. However, long movement should proceed via matrix vP. He also observes that many of the movement restrictions to the left edge in Dutch apply to English and German too.

The two proposals discussed above have implications for Sinhala, in particular, with respect to the factivity related *bava* complement clauses. Haegeman's argument that factive complements have a reduced structure in the left periphery supports the claim for the Sinhala *bava* complement. As observed in the preceding sections, Sinhala *bava* complements too do not allow contrastive topic/focus thereby accounting for the reduced structure. Hence, they are projected as headed by Fin rather than Force, an analysis that has a parallel in Haegeman's discussion. However, what needs to be examined is the assertion issue in Haegeman's argument with respect to factive complements.

The notion of assertion is often associated with performatives, syntactic and semantic independence, main clause etc. and, as tied to speech act theory, has always had an extended use. Palmer (2001) defines modality as a whole in terms of assertion with binary values Realis and Irrealis. Noonan (2007) distinguishes indicative and subjunctive mood in terms of assertion and non-assertion. As quoted by Nordstrom (2010), Hooper (1975) refers to performative verbs such as 'claim' and 'assert' as well as reportative verbs such as 'say' and 'report' as assertive predicates. Hooper also makes a distinction between weak and strong assertives where predicates such as 'believe' and 'seem' which weaken the assertion fall into weak assertive category. Predicates of possibility, doubt, uncertainty, and factive predicates fall into non-assertive predicate type. Nordstrom argues that both the notion of weak assertions and indirect assertions are problematic when the subject of the matrix clause is not 1<sup>st</sup> person. Non-assertiveness has been a defining characteristic of subordinate clauses where different writers attempt to achieve a further fine-grained analysis. Lunn (1995) as quoted in Palmer (2001) suggests three criteria for non-assertiveness of a

proposition: (i) when the speaker has doubts about its veracity. (ii) The proposition is unrealized. (iii) The proposition is presupposed.

In general, many writers do not have a clear consensus about assertion/non-assertion, as reflected in the speech act theory. Further, assertion is realized in terms of veracity, realis/irrealis distinction, presupposition of the embedded proposition etc. These can often vary cross-linguistically: Even the notion of factivity defies neat definition as some writers attempt to define it in terms of syntax, while others in terms of semantics and pragmatics. In contrast, my argument for the Fin location of Sinhala *bava* complement is not associated with assertion. In my proposal, factivity is not a property of the matrix predicate, but a property of the complementizer. In Haegeman's analysis, factivity is determined by the matrix predicate, and therefore, both factive and non-factive complements are introduced by the same complementizer 'that'. As shown above, this is not so in Sinhala which has two distinct complementizers, one for the propositional and one for the factive.

My analysis also contrasts with that of Barbiers. According to his proposal, factive complements have more discourse related structure than propositional complements. Syntactically, he represents this distinction on the basis of the presence/absence of the [Force] feature. Force projection dominates the CP projection in factive complement clauses. In my proposal for Sinhala, the *kiyala* complement, which is equivalent to Barbiers' propositional complement, is headed by Force: The *bava* complement which is the equivalent of his factive complement is dominated by Fin. This difference in syntactic encoding is due to both theoretical and empirical reasons. The phase-based proposal of Barbiers with the EPP feature allows extra projections on the left edge, while the fixed-head-position-based Rizzi's proposal for Sinhala utilizes the existing structure.



There are empirical asymmetries also between Sinhala and Dutch in terms of some of the movement phenomena. For example, the embedded Wh movement is not allowed in Dutch propositional clauses because they are CPs (defective), while it is allowed in factive complement clauses because they are ForcePs. Here, the basic distinction is due to the type of the predicate as factive/non-factive. However, in Sinhala, embedded Wh movement is possible with both factive and non-factive predicates, as shown in (57)-(58).

- (57) Nimal [mona koochchiya-da daen giye kiyala] kalpana kara  
 Nimal [which train-Q now left-E COMP] think did  
 'Nimal thought which train left now'

- (58) Nimal [mona koochchiya-da daen giye kiyala] vaarta kara  
 Nimal [which train-Q now left-E COMP] report did  
 'Nimal reported which train left now'

However, in Sinhala, embedded Wh movement is not possible with *bava* complements, with both the above predicate types, as shown in (59)-(60).

- (59) \*Nimal [mona koochchiya-da daen giya bava] kalpana kara  
 Nimal [which train-Q now left(PTCP) COMP] think did  
 'Nimal thought which train left now'

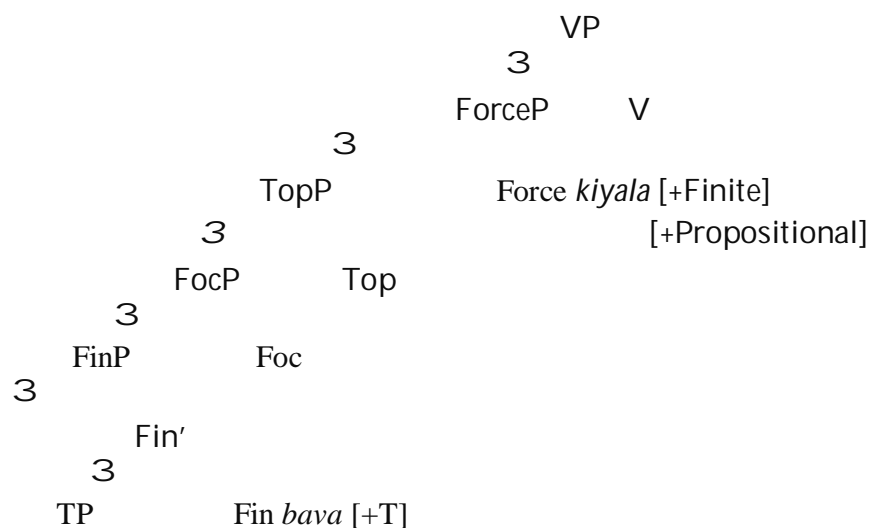
- (60) \*Nimal [mona koochchiya-da daen giya bava] vaarta kara  
 Nimal [which train-Q now left(PTCP) COMP] report did  
 'Nimal reported which train left now'

Examples (59) and (60) suggest that the ungrammaticality is due to a particular property of the complementizers rather than due to a particular property of the predicates. I have attributed the same reason for the embedded topic/focus

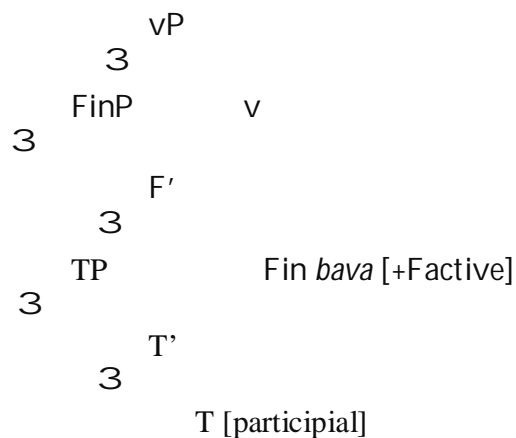
asymmetry between the *kiyala* and *bava* complement clauses. Wh movement in the Sinhala *kiyala* complement clause can target [Spec, Focus] of Rizzi, or even [Spec, Force]. The Sinhala facts show that it is not necessary for the higher predicate to license Force, though it is a requirement for Dutch in Barbiers' analysis.

In conclusion, let me schematically summarize my proposals for the structural analysis of *kiyala* and *bava*

(61) *kiyala*



(62) *bava*



Let us now turn to a discussion of their inflected forms.

## 2.4 Complementizers and Inflections: *Kiyala/bava/vaga/viththiya*

All the four complementizers introduced in section 2.2 (*kiyala*, *bava*, *vaga*, *viththiya*) have inflected forms. In that section, I briefly dealt with the inflected form of *kiyala*, which is *kiyala-th*. This section will begin with a general introduction to the inflected forms of the complementizers. This will be followed by an elaborate discussion of each of these inflected forms that will include their distribution, category status, structural position, and other relevant syntactic phenomena.

Table 5 illustrates the inflected forms of the Sinhala complementizers.

**Table 5: Inflected Complementizers**

Complementizer	- <i>th</i> form	- <i>ta</i> form	- <i>ka</i> form	- <i>in</i> form
<i>Kiyala</i>	<i>kiyala-th</i>	--	--	--
<i>Bava</i>	<i>bava-th</i>	<i>bava-ta</i>	<i>bava-k</i>	<i>baev-in</i>
<i>Vaga</i>	<i>vaga-th</i>	<i>vaga-ta</i>	<i>vaga-k</i>	--
<i>Viththiya</i>	<i>viththiya-th</i>	<i>viththiya-ta</i>	<i>viththiya-k</i>	--

### 2.4.1 The *-th* (also) form: *kiyala-th/bava-th/vaga-th/viththiya-th*

Though we noticed a propositional-factive distinction associated with the complementizers *kiyala* and *bava*, the inflected forms seem to be insensitive to this distinction<sup>10</sup>. The discussion here will cover the *-th* form in general rather than taking up each *-th* inflected complementizer separately. Let us look at some examples first:

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<sup>10</sup> However, like *bava*, *bava-th* is used on more formal occasions

(63) Nimal [Ajith caareka kudukara kiyala-th] kiuva  
 Nimal [Ajith car destroy(PST) COMP-th] said  
 ‘Nimal said that Ajith destroyed the car also’  
 (Ajith did so many other things too)

(64) Nimal [Ajith caareka kudukarapu bava-th/vaga-th/viththiya-th] kiuva  
 Nimal [Ajith car destroy(PTCP) COMP-th] said  
 ‘Nimal said that Ajith destroyed the car also’  
 (Ajith did so many other things too)

The interpretation of the above sentences shows that the particle *-th* has implicit reference to a number of things Ajith did, but selecting one salient action out of them in this case. It has scope over the whole embedded clause, and, can therefore be analyzed as a focus adverb. Like English “also, only, as well, even, alone, in particular” etc., in Sinhala, it is realized as an affixal *-th*. The adverb-function of these focus particles in many languages have attributed them the grammatical category ‘adverb’. Cinque (1999) calls ‘even’ ‘only’ ‘too’ etc. focus adverbs which have the property of occupying multiple positions. They precede DPs, APs, AdvPs, PPs, and VPs as well as various clausal functional projections. He proposes that in such cases, the complement of ‘only’ or ‘too’ raises to the specifier of AdvP across the head, giving the order ‘Mary only’ from ‘only Mary’.

Some of these focus adverbs have an inclusive function as well as an exclusive one; for example, ‘also’ and ‘only’. Sinhala *-th* has an inclusive function (as opposed to exclusive ‘only’ *-vitharaŋ*); therefore, we analyze it as an additive or inclusive focus particle. *-Th* inflection is not the exclusive property of the complementizer domain. Just as any other focus adverb, *-th* too has a different distribution showing its interface character with syntax, semantics, and pragmatics. This interface character of *-th* makes a neat syntactic analysis of

these particles rather difficult. Examples (65)-(72) illustrate these distributional facts:

- a) As a sentential coordinator: meaning 'even if', 'even though'

(65) Nimal vibhage pass una-**th** campus yanne naeha  
 Nimal exam pass was-th campus go-E Neg  
 'Even if Nimal passes the exam, he will not enter the university'

- b) In combination with interrogative quantifiers:

(66) kauru una-th : whoever  
 kohoma una-th: however  
 monava una-th: whatever

(67) eya kauruuna-**th** honda manussay-ek  
 He whoever good man-INDF  
 'Whoever he is, he is a good man'

- c) As emphatic reflexive/assertion marker: (similar to English 'even') (*-th* is suffixed to a noun).

(68) Utsavaya-ta janadhipathi-**th** aava  
 Festival-Dat president-even came  
 'Even the president came for the festival'

- d) As an assertion marker *-th* can be suffixed to a preposition:

(69) Mama meese yata-**th** baeluwa  
 I table under-th looked  
 'I looked even under the table'

e) As an assertion marker *-th* can be suffixed to an adverb

- (70) Eya haiyenu-**th** elavanava  
He fast-th drive  
'He drives even fast'

f) As a conditional particle:

- (71) Oya mata salli dunno-**th**, mama vaede karannam  
You I(DAT) money give-if, I work do(volitive)  
'If you give me money, I will do the work'

g) As a focus adverb (similar to English 'also'). Here, *-th* can be freely suffixed to any constituent in the sentence.

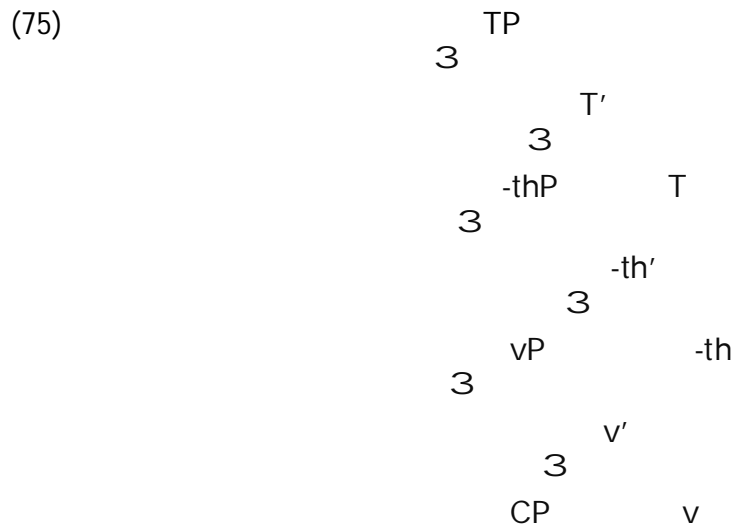
- (72) [Ajithu(th) iiye(th) aava(th) kiyala(th)] Nimalu(th) kiuwa  
Ajith(also) yesterday(also) came(also) COMP(also)] Nimal(also) said

However, only one *-th* is allowed in the sentence and it can occur either in the matrix or embedded. Examples (73) and (74) illustrate this. In (73) *-th* has narrow scope in both matrix and embedded clauses, while in (74), *-th* has wide scope in the embedded, and narrow scope in the matrix.

- (73) \*[Ajithu-**th** enava kiyala] Nimalu-**th** kiuwa  
[Ajith-th come COMP] Nimal-th said  
'Nimal also said that Ajith is also coming.'

- (74) \*[Ajith enava kiyala-**th**] Nimalu-**th** kiuwa  
[Ajith come COMP-th] Nimal-th said  
'Nimal also said that Ajith is coming also.'

The preceding examples illustrate the syntactic, semantic, and pragmatic properties of *-th* particle. It occurs in multiple positions: It can modify VP, TP, or CP. It has quantificational/scope properties (whatever/whoever): It also has a focus interpretation. In order to capture these different phenomena, I propose that *-th* is a functional head merged immediately dominating vP; This analysis can capture all the above distribution facts of *-th* through movement of the relevant constituent to its specifier. In the case of the inflected complementizers *bava-th/vaga-th/viththiya-th*, the whole embedded CP moves to the specifier of the matrix *-th* (75).



#### 2.4.2 The Dative inflection form: *bava-ta/vaga-ta*

Of the four complementizers, only *bava* and *vaga* inflect for what has been called the dative inflection. The dative forms *bava-ta* and *vaga-ta* are in complementary distribution, just as their uninflected forms are. The higher predicates that select *bava-ta/vaga-ta* constitute a closed and restricted class. Such predicates as 'threaten', 'promise', 'is certain' etc. select the dative form, as shown in (76).

- (76) Eya [Nimal-va marana bava-ta/vaga-ta] tharjanaya kara  
 He [Nimal-ACC kill(PTCP) COMP-ta] threaten did  
 'He threatened to kill Nimal'

Example (77) has an alternative form with the embedded infinitive verb, as in (80).

- (77) Eya [Nimal-va maranna] tharjanaya kara  
 He [Nimal-ACC kill(INF)] threaten did  
 'He threatened to kill Nimal'

In (78), *-ta* is positively correlated with irrealis interpretation.

- (78) Apee amma [mama eya-va bandinava-ta] viruddai  
 Our mother [I she-ACC marry(PRS)-ta] against  
 'Our mother is opposed to my marrying her'

The irrealis nature of the *-ta* suffix is further evident in (79) where *-ta* has attached to a TP to convey the interpretation *even if*.

- (79) [Nimal kolamba giya-ta] ada baenku vahala  
 [Nimal Colombo went-ta] today banks closed(PTCP)  
 'Even if Nimal is going/went to Colombo, today the banks are closed'

Recall now that *bavata* is selected by a few predicates like 'threaten', 'is certain'.

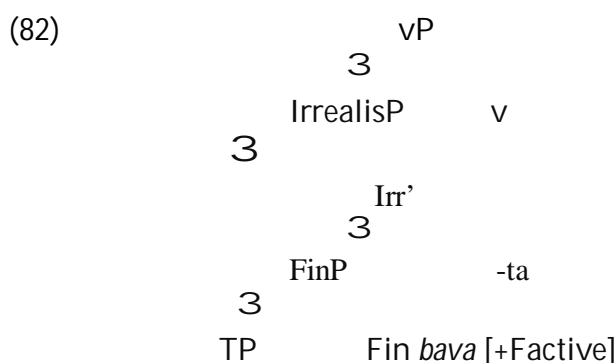
In (80) the higher predicate *threaten* directly selects *bava-ta* rather than *bava*. The ungrammatical (81) indicates this.

- (80) Nimal kaareka kudukarana bava-ta tharjanaya kara  
 Nimal car destroy(PRS) bava-ta threatendid  
 'Nimal threatened to destroy the car'



- (81) \*Nimal kaareka kudukarana \*bava tharjanaya kara  
Nimal car destroy(PRS) bava threaten did  
'Nimal threatened destroying the car'

We have already analyzed *bava* as Fin in Rizzi's C domain. The examples indicate that *-ta* attaches on top of Fin. Hence, the examples are FinPs. Therefore, I conclude that when *-ta* attaches to *bava* (Fin Head), it is a head in the C domain. In particular, its structural position is above Fin but below Force as illustrated in (82).



### 2.4.3 -K (indefinite) inflection (bava-k/vaga-k/viththiya-k)

As the topic indicates, I have labeled this particular inflection as the ‘indefinite inflection’. This is because in Sinhala, the indefiniteness marker is *-k* (definiteness is not marked). Example (83) illustrates this.

- (83) Nimal    potha-k    kiuwva  
Nimal    book-INDF   read(PST)  
'Nimal read a book.'

-k can be suffixed to the complementizers *bava/vaga/viththiya* to indicate indefiniteness of their complements. This inflected form is usually selected by a higher predicate of speech/perception. However, one significant distributional fact relating to *bava-k/vaga-k/viththiya-k* complement clause is that very often it

occurs in negative contexts. In particular, it seems that it should be licensed by NEG in the higher clause, as illustrated in the contrast in (84)-(85).

- (84) [Eya gedara yana bava-k/vaga-k/viththiya-k] mama danne **naeha**  
 [He home go(PTCP) COMP-INDF ] I know-E not  
 'I don't know that he was going home'

- (85) \*[Eya gedara yana bava-k/vaga-k/viththiya-k] mama **dannava**  
 [He home go(PTCP) COMP-INDF ] I know  
 'I know that he was going home'

This particular behavior of -k inflected forms of the complementizers leads one to the natural conclusion that -k is a negative polarity item (NPI). It shows a similar syntactic behavior with other NPIs in Sinhala, such as -*wath* suffixed indefinites: eg; *kauru-wath* (anybody), *mokak-wath* (anything), *kohe-wath* (anywhere) or *kisima*-prefixed indefinites such as *kisima kenek* (anybody) *kisima deyak* (anything) etc. as in (86).

- (86) Kauruwath aave naeha  
 anybody came-E not  
 'anybody did not come/Nobody came'

This NPI can be licensed in the higher clause too, exactly as the inflected *bava-k/vaga-k/viththiya-k* we noticed in the above (84).

- (87) [oya mehe kauruwath andurana bava] mama danne naeha  
 [you here anybody know(PTCP) COMP] I know-E NEG  
 'I don't know that you know somebody here'

- (88) \*[oya mehe kauruwath andurana bava] mama dannava  
 [you here anybody know(PTCP) COMP] I know  
 ‘I know that you know somebody here’

Though the NPI is interpreted as an existential quantifier in (87), it still is licensed by the NEG in the higher clause, as indicated by the ungrammatical (88).

Rajesh Kumar (2006) in a study of NPI licensing in Hindi, divides NPIs in Hindi into two classes as strong (real) and weak NPIs. *Ek bhii* (even one), *abhii tak* (so far), *kabhii* (never), *ek phuuTii kauri* (a red cent), *Tas se mas na honna* (budge an inch), and *baal na baaNkaa karnaa* (not being able to make a difference) are strong NPIs. They need a clause-mate (c-commanding) NEG to license them. On the other hand, *koi bhii* (any), and *kisii bhii* (any) are weak NPIs as they can be licensed by a NEG in the higher clause and can also be licensed in the context of questions, conditionals, modals, and adversative predicates. He shows that there are also syntactic differences between the two. He concludes that weak NPIs are like the English free choice ‘any’.

The inflected *bava-k/vaga-k/viththiya-k* can also be licensed in the context of questions as discussed for Hindi weak NPI licensing in the preceding paragraph.

- (89) [Eya gedara yana bava-k/vaga-k/viththiya-k] Oya dannava-da?  
 [He home go(PTCP) COMP-INDF ] you know-Q  
 ‘Do you know of his going home?’

The distribution of *-k* in *bava-k* in the preceding examples also motivates an analysis along *n*-words and negative concord in Giannakidou (2006), whose argument I briefly present below. As we will see, Sinhala *-k* in *bavak* is not much different from a weak NPI in Rajesh Kumar, although we will not pursue this analysis strictly.

Giannakidou (2006) discusses the semantic and syntactic properties of a set of expressions known as *n*-words that appear in negative-concord (NC) structures. The underlying assumption of her discussion is that *n*-words in strict NC are prototypical NPIs (negative polarity items) because they are not licensed by operators other than negation and anti-veridical *without*.

She distinguishes between *n*-words and other negation-related elements on the basis of the following, (Giannakidou: 328)

(90) **N-word**

An expression  $\alpha$  is an *n*-word iff:

$\alpha$  can be used in structures containing sentential negation or another  $\alpha$  expression yielding a reading equivalent to one logical negation; and

$\alpha$  can provide a negative fragment answer.

She argues that NC is exhibited in situations where negation is interpreted just once although it seems to be expressed more than once in the clause. One occurrence of negation is the sentence negation (SN) and the additional occurrence of negation is the *n*-word.

Examples (91) and (92) illustrate both the *n*-word and NC (Giannakidou: 329. 2, a, e)

(91) Gianni \*(non) ha visto **niente** (Italian)  
 John (not) have.3sg seen *n*-thing  
 'John didn't see anybody'

(92) Janek \*(nie) pomaga nikomu (Polish)  
 Janek not help n-person  
 'Janek doesn't help anybody'

Giannakidou also derives a class of ‘stronger’ *n*-words on the obligatoriness of the sentence negator (SN) in the structure containing the *n*-word. She observes that *n*-words may also occur in non-negative contexts such as interrogative sentences, conditionals, superlatives, and restrictions of universal quantification, without contributing negation.

Based on the empirical evidence from Greek, Romance and Slavic, Giannakidou argues that NC is not a uniform but a quite diverse phenomenon which reflects its empirical richness. She supports this claim with a range of properties attributed to *n*-words, which she uses as diagnostics. Following a quantificational approach to *n*-words, and given the interaction between logical negation and quantifiers, she offers the following five options as possible interpretative strategies for *n*-words: (a) *n*-words can be negative; (b) *n*-words can be existential; (c) *n*-words can be universal quantifiers; (d) *n*-words can be ambiguous between negative and existential quantifiers; and (e) *n*-words can be ambiguous between universal and existential quantifiers (Giannakidou: 381,382)

Returning to Sinhala, the inflected *bava-k* may warrant an analysis as an *n*-word, as it exhibits a number of properties that Giannakidou has claimed for many European languages. As we noted in (84) and (85), NEG is obligatory in *bava-k* contexts as a licenser, which indicates that *bava-k* displays strict negative concord of Giannakidou. Further, just as other *n*-words of this class, *bava-k* can contribute non-negative interpretation too in polarity structures as in a Wh (93).

- (93) [Eya ada ena bava-k] oya mata kluwa-da?  
 [He today come (PTCP) bava-k] you I-DAT said-Q  
 ‘Did you tell me that he was coming today?’

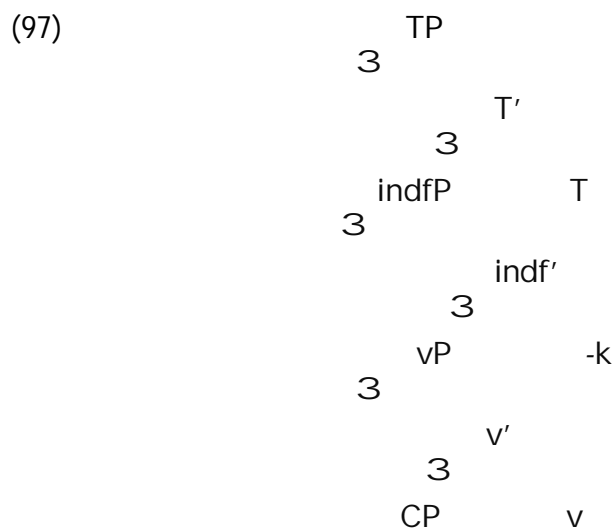
Giannakidou's quantificational analysis of *n*-words typologizes three classes of *n*-words as existential *n*-words, universal *n*-words, and negative *-n* words. These three types exhibit distinct properties, although cross linguistically, *n*-words may display the properties of any two of the above classes and thus remain ambiguous. *N*-words are mostly nominal or adverbial, although Giannakidou observes that cross-linguistically they form a heterogeneous class in terms of their distribution and semantic properties. Since *bava-k* is neither a nominal category nor an adverbial one, it does not obey Giannakidou's diagnostics, and therefore a conclusive judgment is not possible for *bava-k*, as to exactly which class of *n*-words that it belongs. However, the fact that it obeys long-distance licensing that we saw in (84) and (89), and the existential nature of the *-k* morpheme in exhibiting indefiniteness suggest that *bava-k* is an existential *n*-word. That it is not a negative *n*-word is clear in its inability to contribute negative meaning without NEG, although it does so in languages without negative concord (94). (Giannakidou: 360, 77)

- (94) Heeft Frank niemand gezien (Dutch)  
 Have.3sg Frank nobody seen  
 'Is it true that Frank saw nobody'

In contrast, Sinhala *bava-k* cannot be licensed without NEG (95)-(96).

- (95) \*Oya [Nimal mehe ena bava-k] mata kiuwa.  
 You [Nimal here come(PTCP) bava-k] I-DAT told  
 'You told me that Nimal was coming here'
- (96) Oya [Nimal mehe ena bava-k] mata kiuwe naehae.  
 You [Nimal here come(PTCP) bava-k] I-DAT told-E NEG  
 'You did not tell me that Nimal was coming here'

Therefore, I conclude that *bava-k* is an existential *n*-word where the *n*-morpheme *-k* is suffixed to the *bava* complementizer. Since *n*-words in strict negative concord as in Sinhala are NPIs, our NPI analysis of *-k*, following Rajesh Kumar (2006) also holds true:- *-k* may be a distinct head to whose specifier the *bava* complement moves (97).



#### 2.4.4 Inflected form “*Baevin*” (*bava* > *baev-in*)

Of the inflected forms of the complementizers, what remains to be discussed is the *baevin* inflection. None of the other complementizers has this *-in* inflection. Also, this occurs only in the passive constructions<sup>11</sup>. Examples with *baevin* inflected form show that no complementation is involved in this case. This seems to be simply an adverbial phrase, as shown in (98).

- (98) Irida nivaadu davasa-k **baev-in** kaaryaalaya vasaa-thabanu laebe  
 Sunday holiday day-INDF COMP-in office close-keep(PTCP) Be  
 ‘As Sunday is a holiday, the office will be closed’

<sup>11</sup> Passives are not used in colloquial Sinhala

In colloquial Sinhala, *baevin* is replaced by *nisa* (as) (99).

- (99) [Irida        nivaadu    davasa-k **nisa**] kaaryaale    vahala  
       [Sunday   holiday   day-INDF **as**]    office                close(PTCP)  
       ‘As Sunday is a holiday, the office is closed’

## 2.5 Conclusion

This chapter examined the distribution of complementizers in Sinhala. We first looked at the development of the status of the complementizer in the context of generative grammar from past to present. We observed that both the generative grammar and different cartographic approaches have re-defined the role and status of the complementizer in natural language. One important observation we made was that the distinctive nature of these different theoretical approaches allowed less scope for convergence. However, I argued that, in order to capture the complexity of the structure of UG complementizer domain, we need both the cartographic and minimalist approaches. The preceding discussion of complementizer distribution supports this view. Notably, the major findings pertaining to the complementizers and their inflected forms show that they warrant an analysis incorporating Rizzi’s Left periphery analysis, Cinque’s cartography, and Chomsky’s minimalist approach.

The major claims in the chapter are that the quotative complementizer in Sinhala is *kiyala* which is associated with epistemic mood and that it occupies Rizzi’s Force position. We argued that in Sinhala, factivity is determined by the *bava* complementizer rather than a distinct factive predicate making the *bava* complement in Sinhala, factive. We analyzed *bava* as a Fin head in Rizzi’s C domain. Of the inflected forms of the complementizers, we noticed that the *-th* inflection showed a number of syntactic phenomena including clause



coordination, and focus. We located *-th* as a distinct head in the vP domain. We analyzed *-ta* of *bava-ta* as a head in the C domain indicating mood irrealis. We analyzed *-k* inflection of *bavak/vagak/viththiyak* as an *n*-morpheme in negative concord, in line with Giannakidou (2006), which also warrants an NPI analysis following Rajesh Kumar (2006). Finally, we concluded that the inflection *baevin* occurs in an adverbial phrase and therefore no complementation is involved.

## **CHAPTER 3**

# **MOOD AND MODALITY AND ROOT AND EMBEDDED PERIPHERIES**

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This chapter presents a comprehensive discussion of the functional architecture of Sinhala. In particular, we will look at the mood/modal markers in terms of root and embedded peripheries. We will look at the functional sequence of Sinhala clause with respect to Cinque's (1999) functional hierarchy and Rizzi's (1997, 1999) left periphery proposal.

The chapter is organized along the following lines. Section 1 presents an overview of mood/modality with special reference to Cinque's (1999) functional head hierarchy. This is followed by, in section 2, a brief introduction to the mood/modality of the Sinhala clause. Section 3 is a comprehensive discussion of modal particles of Sinhala. This includes both epistemic and root modals as well as different negation particles. Section 4 presents an analysis of the functional sequence in Sinhala. Section 5 is a brief chapter conclusion.

### **3.1 Introduction: Mood and Modality**

An introductory discussion of mood and modality is quite complex in many respects. To begin with, both mood and modality defy neat definitions. Across languages, the picture is quite complex and varied as moods do not map neatly from one language to another. Modality can be expressed syntactically by modal verbs, imperatives, verbal inflection, modal adverbs and modal particles. Often, mood can be expressed through modality, thereby obscuring the distinction between the two. Cinque (1999) treats mood and modality together following tradition, but also because the same category may be expressed via mood in one

language and with a modal in another, in a manner suggestive of a close link between the two.

Mood is often treated as a grammatical category, morphologically marked on the verb, and expressing the subjective attitude of the speaker towards the state of affairs described by the utterance. Most languages have independent paradigms for the indicative, subjunctive, and the imperative moods, while at least some other may mark further finer distinctions as, conditional, optative and the like. Modality, on the other hand, is considered as a semantic concept expressing such notions as possibility, necessity, probability, obligation, permission, ability, and volition. These different notions have given rise to distinct sub-types of modality as epistemic, evidential, root, etc. Languages vary considerably in the way they realize each of these finer distinctions.

Palmer (2001) observes that there is considerable variation in the ways that languages deal with grammatical categories, and there is probably more variation with modality than with other categories. He observes that one language may mark commands as irrealis, another may mark them as realis, while yet another may not treat them as part of a system of modality at all. He divides modality into two domains: propositional modality and event modality: The former stands for the speaker's attitude to the truth value or factual status of the proposition. It is denoted by epistemic-evidential morphemes in the modal system, and the indicative-subjunctive, and realis-irrealis in the mood system. He also observes that there is no typological difference between indicative/subjunctive and realis/irrealis, although there are some differences in their distribution and syntactic functions.

Noonan (2007) uses the term mood to refer to a grammatical category while modality refers to a semantic category. He observes that the two are related, in that the mood categories can usually be viewed as grammaticalizations of modalities. Nordstrom (2010) divides modality into three different domains. That is, in addition to Palmer's propositional and event modality distinction, Nordstrom adds a further domain— speech act (speaker oriented) modality. She argues that Palmer's (2001) unification of all modality categories into one super-category, modality, with assertion as the relevant feature and realis-irrealis as its binary values is too wide and conceptually vague. She proposes the following scope relations for these three modality types: (Nordstrom 2010: 15)

- (1) (speech act modality (propositional modality (tense (aspect (event modality (voice (valence (verb))))))))))

Nordstrom's speech act modality includes imperative, hortative, jussive, prohibitive, optative, and interrogative, while propositional modality includes epistemic, evidential, indicative-subjunctive, realis/irrealis and conditional modality. The third category, event modality includes deontic modality and dynamic modality.

Modality interacts with other modules of the grammar such as tense and aspect so that a distinct boundary between each is difficult to mark out. In notional terms, all three are concerned with the event or situation reported by the utterance. Tense is concerned with the time of the event: aspect with the nature of the event, particularly its internal structure, while modality is concerned with the status of the proposition that describes the event (Palmer: 2001).

In recent times, cartographic approaches have attempted to present a unified picture incorporating all these domains of language structure and language use.

The cartographic project assumes the existence of a large number of functional categories, and attempts to map out the universal hierarchy by which they are ordered. Since the cartographic project is grounded in the generative enterprise, naturally, the ultimate aim is to understand and model the nature of the language faculty. The underlying assumption is that all languages involve the same functional sequence and the same principles of phrase and clause composition, although they may differ in the movements they admit and in the projections that are overtly realized (Cinque 2006: 4-5). Consequently, their typological and universal orientation has contributed to our understanding of the structure of UG. Notably the cartographies of Cinque (1999), and Rizzi (1997, 1999) have focused on the different domains of the clause with a view to finding a universal framework, so that their representation in UG can be better understood.

### **3.2 Mood-Modality and the Functional Structure of the Sinhala Clause**

Sinhala has a number of particles/suffixes to convey mood, modality, interrogative, and the information focus. As illustrated in the following sections, they can attach to any lexical category in an agglutinative fashion and take scope over the domain to the left. They can also attach at the clausal level, thereby scoping the whole clause. They are present in both root and embedded peripheries; although their distribution is not uniform in this respect, interacting as they do, with the morpho-syntax of Sinhala at different levels. For example, the presence of such a mood/modal/interrogative or information focus particle in the clause is shown in the verbal morphology in the form of an –e suffix, in the present and past tenses.

Examples (2)-(3) illustrate this phenomenon with respect to evidential modality alone, although the same phenomenon occurs with respect to other modalities, interrogative, negation, and focus as well. We will examine them in detail in the relevant sections.

Example (2) is a neutral sentence. In (3), the subject, *Nimal*, is exclusively in the (narrow) scope of the evidential modal particle, i.e. the evidential report is about *Nimal*.

- (2) Nimal pol kaeduwa  
 Nimal coconut(PL) plucked  
 ‘Nimal plucked coconuts’

- (3) Nimal **Iu** pol kaeduw**E**  
 Nimal **EVID** coconut(PL) plucked-**E**  
 ‘Nimal, it is said, was the one who plucked coconuts’

The same particle can attach at the clausal level, and then the whole clause comes under the (wide) scope of that particle (4).

- (4) Nimal pol kaeduwa **Iu**  
 Nimal coconut(PL) plucked **EVID**  
 ‘It is said that Nimal plucked coconuts’

Note that a crucial difference between (3) and (4) is that the –e suffix is absent in the latter. This differential behavior of the –e suffix highlights two things: (i) it is not simply the modal particle that determines the contrastive modal interpretation, but the verbal inflection also takes part in this process. (ii) It shows the scope marking potential of the modal particle and the corresponding verbal morphology. That is, when the modal particle attaches to any phrase level

constituent, the verb inflects for –e. This creates a set of alternatives out of which one individual/entity is given saliency. But, when the same particle attaches to the whole clause, it does not inflect for the –e suffix (4). Therefore, (4) indicates that the alternative set is not available in this instance<sup>1</sup>.

In both cases, however, there must be adjacency between the relevant particle and the scope marked constituent/clause. No other category (adverb etc) other than another modal particle or focus particle can intervene between the two. As demonstrated below, (5) is ungrammatical because an adverb intervenes between the clause and the modal. Example (6) shows that only a category such as focus that shares the same properties with a modal may intervene between the two.

- (5) \* Nimal pol kaeduwa **ada** **lu**  
 Nimal coconut(PL) plucked **today** **EVID**  
 'It is said that Nimal plucked coconuts today.'

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1 Any XP can be marked for modality (also for Focus and Topic) whereas a head marked for modality is not fine. Examples (i) – (iv) show that- VPs, and PPs can be so marked.

- (i) [Pol kaeduva lu] Nimal  
 [coconuts plucked evid] Nimal  
 'It is said that Nimal plucked coconuts' (VP scope marked by evid 'lu')
- (ii) ??[kaeduva lu] Pol Nimal  
 [plucked evid] coconuts Nimal  
 'It is said that Nimal plucked coconuts' (V scope marked by evid 'lu')
- (iii) [Meese uda lu] potha thiyenne  
 [Table on evid] book is-E  
 'It is said that the book is on the table' (PP scope marked by evid)
- (iv) ??[uda lu] meese potha thiyenne  
 [on evid] table book is-E  
 'It is said that the book is on the table' (P scope marked by evid)

- (6) Nimal pol kaeduwa **tamai lu**  
 Nimal coconut(PL) plucked **FOC EVID**

‘Nimal plucked coconuts, indeed, it is said.’

In the light of these facts, it would appear that the grammaticality of (7) – which has an adverb intervening between the –e marked verb and the evidential particle – may appear to be a problem; However, the modal has scope only over the constituent to its immediate left, the adverb *ada* ‘today’, and the [adverb plus the evidential particle] constituent has been postposed.

- (7) Nimal pol kaeduw**E ada lu**  
 Nimal coconut(PL) plucked-E **today EVID**

‘It is said that it is today (that) Nimal plucked coconuts’

Evidence for this analysis comes from the e- suffix which is only licensed when the modal forms a constituent with the adverb (and not with the verb).

Given these facts, the most natural analysis of these modal particles is a raising one, whereby the constituent under the narrow scope of a particular modal particle (whether subject, adverb or a prepositional phrase) raises to the specifier of the modal head. In other words, it is reasonable to assume that modality is encoded in syntactic features entering the derivation through the numeration. As we shall show in later sections, the Sinhala facts reveal that the specifier position of a modal head can be a potential subject position, among other possibilities. To begin with however, the focus of our attention will be the verbal morphology/inflection and mood/modality connection, in root and embedded contexts.



### 3.2.1 Speech Act Mood

Sinhala overtly marks on the verb, a number of speech act moods: They are: declarative, imperative, hortative, volitive, conditional, and permissive. Table (1) illustrates their distribution<sup>2</sup>. The root verb for all the examples is *kapa* (cut).

**Table 1: Speech Act Moods**

Sp act mood	Root Verb	mood suffix	Example
Indicative	kapa (cut) + tense morpheme (-na)	-aa	kanavava: Nimal gaha kanava Nimal tree cut (PRS) 'Nimal is cutting the tree'
Imperative	kappa	-nna	kananna: Oya gaha kananna You tree cut(IMP) 'You cut the tree'
Hortative	kappa	-mu	kapamu: Api gaha kapamu We tree cut (HORT) 'Let us cut the tree'
Volitive	kappa	-nnan	kanannan: Mama gaha kanannan I tree cut (VOL) 'I will cut the tree' (commitment)
Conditional	kappa	oth/ thoth	kapathoth/kaepuwoth: Oya gaha kaepuwoth, amma baniivi You tree cut (COND) mother scold-FUT 'If you cut the tree, mother will scold you'
Permissive	kaepuaa	-e	kaepuaave: Eyaa gaha kaepuaave He tree cut(PERM) 'Let him cut the tree'

<sup>2</sup> Some mood suffixes select a different root form of the verb as shown in permissive. In the case of indicative mood suffix, a present tense/past tense morpheme is suffixed to the root first. Then the mood suffix is attached.

In Sinhala, interrogative mood is realized in the form of an interrogative mood particle *-da*, unlike other moods, which are suffixal in nature. Furthermore, the interrogative mood particle is peripheral to the inflected verb, in that it is attached to the inflected form of the verb (whether it is indicative, imperative, volitive, etc.) (8)-(9).

(8) Kapa + na + va + **da**  
 Root + PRS tense + ind + **Q**  
 Cut?

(9) Oya gaha kapanava-da?  
 You tree cut(PRS)-Q  
 'Are you cutting the tree?/will you cut the tree?'

Technically, therefore, the interrogative modal particle does not constitute grammatical mood as such; however, keeping to the conventional treatment of other languages, I maintain that Sinhala attests three grammatical moods: Indicative/declarative, Imperative, and Interrogative. These three super categories subsume other moods/modalities as well. In this sense, *yes/no* and *Wh* questions are different realizations of the interrogative mood.

These three speech act moods type the clause as, imperative, declarative or interrogative. A typologically unusual property of Sinhala is that the unmarked form of a verb does not have a default mood/modal interpretation; i.e. unlike many languages where the root form is the default form for the declarative. In this respect, Sinhala shares with Lele (an East Chadic language of the Afroasiatic family) (Frajzyngier 2002).

Modal particles, which I discuss in detail below, attach to verbs inflected for indicative, imperative, hortative etc. The following paradigm illustrates this with the evidential modal particle *-lu*. All the other modal particles too follow the same.

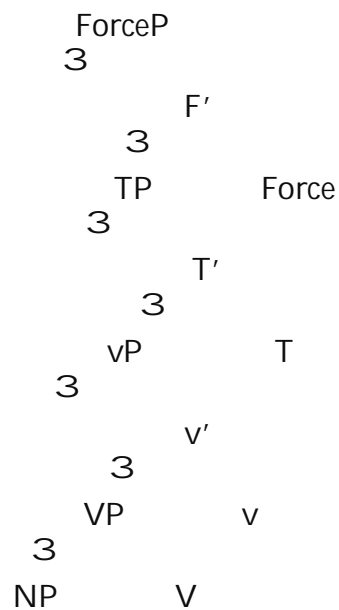
**Table 2: Speech Act Moods and Modals**

Sp act mood	root verb	mood suffix	Example	modal particle	Example
Indicative	kapa (cut) (-na: pres tense marker)	-aa	kanavaa (cut: PRS)	-lu (EVID)	Kanava-lu: Nimal gaha kanava lu Nimal tree cut(PRS) EVID 'It is said that Nimal is cutting the tree'
Indicative	kaepu (PST)	-aa	kaepuva	-lu	Kaepuva-lu: Nimal gaha kaepuva lu Nimal tree cut(PST) EVID 'It is said that Nimal cut the tree'
Imperative	kapa (cut)	-nna	kananna	-lu	Kananna-lu: Oyaa-ta gaha kananna lu You-DAT tree cut(IMP) EVID 'They ask you to cut the tree'
Hortative	kappa	-mu	kapamu	-lu	Kapamu-lu: Api gaha kapamu lu We tree cut(HORT) EVID, 'Let us cut the tree (they say)'
Volitive	kappa	-nnan	kanannan	-lu	Kanannan-lu: Eyaala gaha kanannan lu They tree cut(VOL) EVID, 'It is said, they will cut the tree' (commitment)
Irrealis/future	kapaaa	-i	kapaavi	-lu	Kapaavi-lu: Nimal gaha kapaavi lu Nimal tree cut(FUT) EVID 'It is said that Nimal will cut the tree'

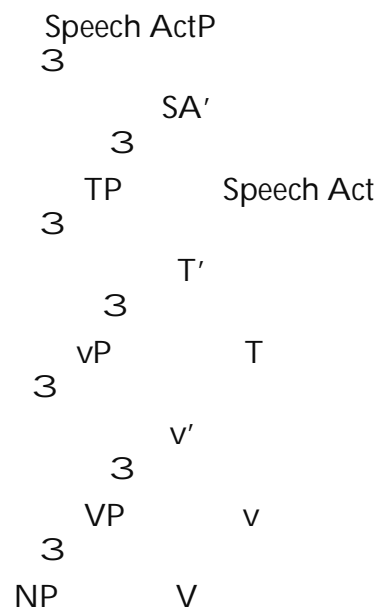
With regard to the structural positions of these mood markers in the functional sequence, note first that there is frequently a great deal of confusion over the basic classification. Given that one of the functions of grammatical mood/modality is to mark out speech acts, it is expected that, performatives (interrogatives and imperatives), illocutionary force, and assertion are always tied to speech act theory/speech act modality. However, at the same time, imperative, declarative, and interrogative moods have often been considered as denoting the illocutionary force of the utterance (Rizzi 1997). Cinque, (1999) refers to the basic illocutionary force of an utterance most often encoded by affixes on the verb by his speech act mood. He includes basically, the declarative, imperative, and interrogative in this category.

Different construals of the terms 'speech act' and 'illocutionary force' have led to distinct proposals about their hierarchical ordering. For example, in Rizzi (1997, 1999), 'Force' is the highest in the C-domain, but Cinque's 'speech act mood head' is the highest in the inflectional domain above vP, and hierarchically organized with respect to other moods/modals. Cinque also notes that his speech act mood and Rizzi's Force are two distinct projections. Examples (10) and (11) illustrate these speech act/Force related head positions in the two cartographies of Rizzi and Cinque (leaving out the rest of the discourse/functional heads).

(10) Rizzi(1997)



(11) Cinque (1999)

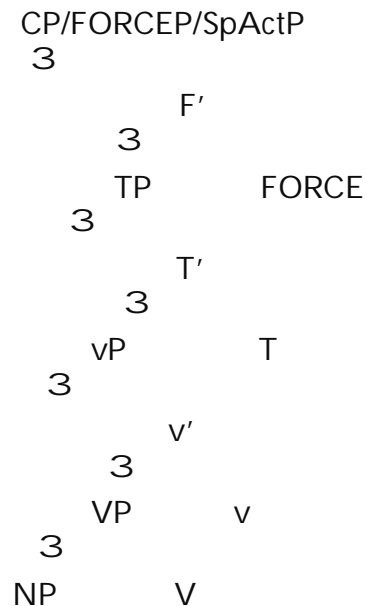


As already mentioned in Chapter 2, I draw on the insights of Portner (2009) to make sense of the relations and distinctions between clause type, sentential force, and illocutionary force. According to Portner, clause types include the categories

of declarative, imperative and interrogative: they do not convey illocutionary force; rather, they refer to form. Sentential forces are the conversational uses associated with these types. For example, all declaratives have the sentential force of assertion. He observes that, in contrast, the illocutionary force of a sentence is the communicative act which the speaker intends on a particular occasion. Thus, '*I wonder if you can tell me time*' has the sentential force of assertion, but the illocutionary force of asking. "Sentential force must be analyzed at the interfaces among syntax, semantics and pragmatics, while illocutionary force is a pragmatic phenomenon having to do with the speaker's communicative intentions analyzed in terms of speech act theory" (Portner 2009: 263)

In Sinhala, clause typing or speech act mood (in Cinque's terms) is a property of the matrix verbal inflection. It types the clause into a number of moods as declarative, and imperative as noted in the preceding sections. The head involved in this operation is the root C: Force or speech act mood head. In order to show the distinction between the embedded Force on the one hand and Cinque's TP based speech act on the other, I call it FORCE, and this is the highest structural position in the clause. It denotes clause type (12).

(12) Sinhala: root clause



### 3.3 Epistemic and Root Modals in Sinhala

Palmer (2001) divides modality into two domains: propositional modality and event modality, where the former stands for the speaker's attitude to the truth value or factual status of the proposition, and the latter concerns the conditions on the agent with respect to the main event. Epistemic and evidential systems are the two main types of propositional modality, while deontic and dynamic are the two main types of event modality. Viewed from this broader perspective, epistemic modality is then a quite broad class that includes a number of other modal types that relate to the status of the proposition. Similarly, event modality corresponds to the root modality which relates to obligation, permission, ability, and willingness.

According to Cinque (1999), epistemic modality expresses the speaker's degree of confidence about the truth of the proposition (based on the kind of

information he/she has). Further, in Cinque's functional sequence, epistemic modals and root modals correspond to a structural difference as well: epistemic modals are generated higher in the structure and have scope over the root modals.

In my analysis of modality, I will follow the directions set by Palmer (2001). Sinhala expresses a number of modalities which are realized in the form of particles and lexical words. Interpretively, they correspond to the epistemic root distinction. We will examine whether this distinction holds structurally too in our detailed examination of each in later sections. Epistemic modals include the evidential, evaluative, interrogative and irrealis. Root modals include the modals denoting ability, possibility/probability and permission. In my discussion, I will keep basically to the epistemic-root distinction and consider epistemic as a broader category that includes the modalities evidential, evaluative, and epistemic. But, I will refer to these individual modal categories by their respective labels as evidential, evaluative etc. Similarly, in the case of root modals, I will refer to them by their individual labels as root-ability, root-possibility etc. Table (3) lists such modals/lexical words denoting both types of modality.



**Table 3: Epistemic and Root Modals in Sinhala**

Broad type	Category	Modal	Example ( <i>kapanava</i> : cut) ( <i>bava</i> : Fin head)
Epistemic	evidential	-lu	Nimal gaha kapanava-lu Nimal tree cut(PRS)- EVID 'It is said, Nimal is cutting the tree'
	evaluative	-ne	Nimal gaha kapanava-ne Nimal tree cut(PRS) EVAL 'Nimal is cutting the tree' (evaluation/shared information)
	interrogative	-da	Nimal gaha kapanava-da? Nimal tree cut(PRS)- Q 'Is Nimal cutting the tree'
	irrealis	-ta	Nimal gaha kapana bava-ta saakki thiyenava Nimal tree cut(PTCP) Fin -ta evidence has 'There is evidence that Nimal is cutting/going to cut the tree'
	conditional	oth/ thoth	Nimal gaha kaepu-woth mama salli denava Nimal tree cut-COND I money give(PRS) 'If Nimal cuts the tree, I will give money (to him)'
	epistemic	vage	Nimal gaha kapanna vage Nimal tree cut(INF) seem 'Seems, Nimal is going to cut the tree'
	epistemic	aethi	Nimal gaha kapanava aethi Nimal tree cut(PRS) EPIS 'Nimal may be cutting the tree'
	epistemic possibility	puluwan	Nimal natanna puluwan Nimal dance(INF) possible 'Nimal <b>might</b> dance'
Root	ability	puluwan	Nimal-ta natanna puluwan Nimal-DAT dance(INF) can 'Nimal <b>can</b> dance'
	permission	puluwan	Oya-ta daen yanna puluwan You-DAT now go(INF) can 'You may go now ' (you are permitted to go now)
	prohibition	epa	(Oya) yanna epa (You) go(IMP) NEG 'Don't go'

The table illustrates a number of significant properties of Sinhala modals. Of the epistemic modals, evidential, evaluative, epistemic (except epistemic possibility),

and interrogative attach to the fully inflected verb, i.e. they attach to the present, past, future, and past participle verbal forms which may be inflected for indicative/ imperative/hortative/volitive/and future/irrealis moods of the verb. But note here that in root/event modalities, the modalities of ability, permission and prohibition, only the infinitive/imperative verb forms are allowed. Narrow scope marking by the modal is not possible here, as shown in (14)-(15). Example (13) with EVID, contrasts with (14) and (15) with the root modal indicating ability.

(13) **Nimal lu** pol kaeduwe  
 Nimal EVID coconut(PL) plucked-E  
 'Nimal, it is said, is the one who plucked coconuts'

(14) \***Nimal puluwan** pol kadanna  
 Nimal can coconut(PL) pluck(INF)  
 'Nimal can pluck coconuts'

(15) Nimal-ta pol kadanna **puluwan**  
 N-DAT coconut(PL) pluck(INF) can  
 'Nimal can pluck coconuts'

Having examined some of the general properties of the epistemic-root distinction so far, in the next sections I will examine each type of modal in more detail. The discussion begins with evidential modality.

### **3.3.1 Evidential Modality**

It is common in many languages to have a verbal affix, modal auxiliary, or a particle to express the type of evidence the speaker has for his/her assertion. Such evidential markers may exhibit a very elaborate system, with distinctions

according to whether the speaker has visual evidence, auditory, or sensory evidence of some other kind. Other languages simply make a distinction between direct evidence and reported, or hearsay evidence.

Evidentiality in Sinhala is expressed by the particle *lu*. *Lu* is a quotative and therefore is an indirect evidential marker as the source of evidence the speaker has for his statement is indirect. A noun, verb, preposition, or an adjective can be in the scope of *lu* or the whole proposition can be in its scope. When *lu* is pre-verbal, (constituent scope) there is e-marking of the verb. In this case, either the subject DP or the object DP can be scope marked for evidentiality (16)-(17). The –e suffix is absent in the post-verbal position (propositional scope) of *lu* (18).

- (16) Nimal lu kaareka horakam-kare  
 Nimal EVID car steal-did-E  
 'Nimal, it is said, is the one who stole the car'

- (17) Nimal kaareka lu horakam-kare  
 Nimal car EVID steal-did-E  
 'It is said that it is the car that Nimal stole'

- (18) Nimal kaareka horakam-kara lu  
 Nimal car steal-did EVID  
 'It is said that Nimal stole the car'

(The whole proposition is scope marked for "lu" and the verb is not e-marked)

As shown in (16)-(18), a pre-verbal constituent or a whole proposition can be marked for evidentiality in Sinhala. However, in embedded clauses, the evidential cannot have narrow or wide scope, thus indicating that evidentiality in Sinhala is a root phenomenon. At the same time, the EVID marker may be

placed at the edge of an island in order to make the sentence grammatical. The ungrammatical (19)-(20) and the grammatical (21) illustrate that the scope of the EVID marker is the whole embedded clause, and not *Ajith* or *the goods*; therefore, its scope is propositional.

(19) \*Nimal [Ajith **lu** horakam karapu badu-wagayak] soyanne  
 Nimal [Ajith **EVID** stolen did goods-certain] look for-E  
 'It is said that Nimal is looking for certain goods stolen by Ajith'

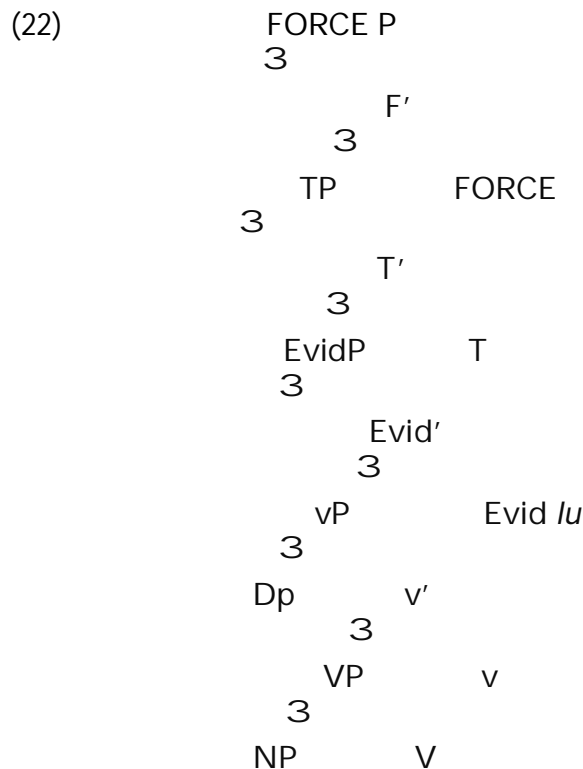
(20) \*Nimal [Ajith horakam karapu **lu** badu-wagayak] soyanne  
 Nimal [Ajith stolen did **EVID** goods-certain] look for-E  
 'It is said that Nimal is looking for certain goods stolen by Ajith'

(21) Nimal [Ajith horakam karapu badu wagayak **lu**] soyanne  
 Nimal [Ajith stolen did goods certain **EVID**] look for-E  
 'It is said that it is the goods stolen by Ajith that Nimal is looking for'

This distribution is not unexpected, as evidentiality is a root phenomenon that indicates what is evident to the speaker, whether he has direct/indirect evidence for the utterance. This is further supported by empirical facts as two evidential particles (*lu*) cannot occur in the clause simultaneously, one in the matrix and another in the embedded. In (19)-(20), the EVID *lu* cannot occur in a PTCP. When the matrix *lu* scopes over a DP that contains a PTCP, as in (21), the sentence is grammatical.

Now the question arises about the structural position of the evidential marker *lu*. Cinque (1999) projects the evidential head higher in the structure between the evaluative and epistemic mood heads. In the case of Sinhala, a complication arises as many modal particles can take scope over a DP, PP, ADV on the one

hand, and the whole clause on the other, thus conveying different scope interpretations, and having distinct morpho-syntactic reflexes: as we noted above, when a lexical category other than a verb comes under the scope of a modal category, the verb bears an –e suffix, which is not realized when the modal category scopes over the clause. Therefore, the question is whether to have a unique structural position or two structural positions for the evidential particle. I propose that there is only one structural position for *lu*, and that it occupies a position above vP but below TP (22).



We will determine the relative position of *lu* among other modals in the course of our discussion of the other modal particles. Presently, we notice that *lu* occurs below Force/Speech ActP.

### 3.3.2 Evaluative Modality

As Cinque (1999) observes in his hierarchy of functional heads, mood evaluative is realized as a bound morpheme (suffix), or by a free morpheme (modal or particle), across languages. Such mood particles do not affect the truth of the proposition, but rather express the speaker's (positive, negative, or other) evaluation of the state of affairs described in it.

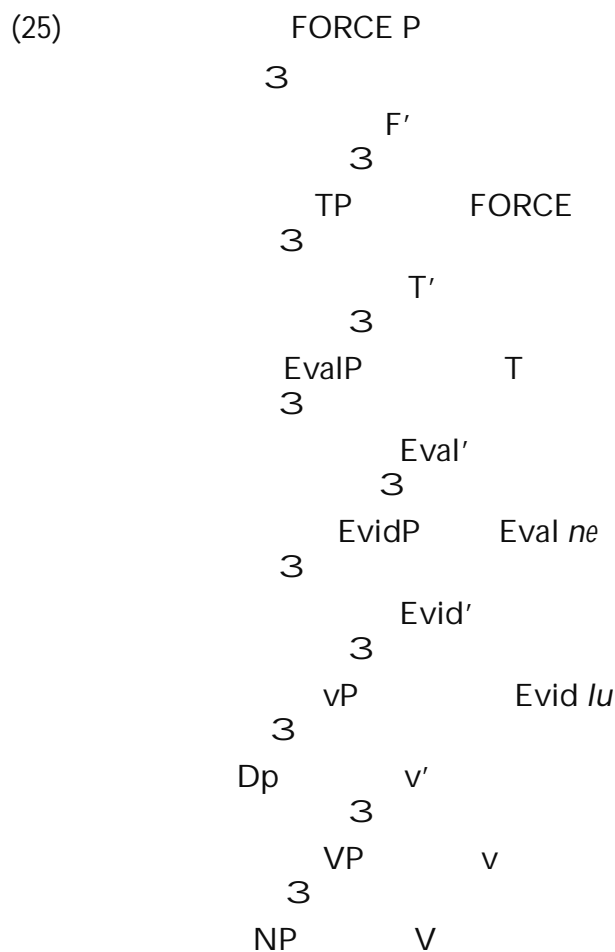
In Sinhala, evaluative mood is realized by the particle *ne* and it does not affect the truth of the proposition, but rather expresses the speaker's positive or negative evaluation of the state of affairs described in it. Hence, *ne* conveys the speaker's appreciation, surprise, disappointment, or disapproval. It also expresses shared information. *Ne* can mark both narrow and wide scope, as it was in the case of the evidential modality. Example (23) indicates wide scope marking of the evaluative modal particle.

- (23) Hattiya binduna ne  
Pot broke (involuntary) EVAL  
'The pot broke' (disappointment/surprise/shared information)

When the particle *ne* marks narrow scope, it indicates shared information through contrastive focus. It marks one as salient out of a set where the information is shared. As in the case of evidentiality, here too the verb bears the –e suffix. In (24), *Nimal*, the subject is marked for narrow scope, but at the same time the sentence implies that the hearer too knows this information.

- (24) Nimal ne mata eeka kiuwe  
Nimal EVAL me it said-E  
'It is Nimal who told it to me' (shared information)

Like evidential modality, *ne* too cannot occur in an embedded periphery. This shows that evaluative modality is a root phenomenon in Sinhala. As for the structural position of the evaluative modal particle *ne*, I propose that *ne* occupies a position above vP. But it occurs higher than evidential modality, as illustrated in (25).



Examples (26)-(29) further illustrate these structural positions. Examples (26) and (27) indicate narrow and wide scope marking of both the evidential and evaluative particles respectively. The ungrammatical (28) and (29) indicate that *ne* occurs higher than the evidential *lu* in the clause structure.

- (26) Nimal **lu ne** hattiya binde  
 Nimal EVID EVAL pot broke-E  
 'Nimal it is said broke the pot' (shared information)
- (27) Nimal hattiya binda **lu ne**  
 Nimal pot broke EVID EVAL  
 'It is said that Nimal broke the pot' (shared information)
- (28) \*Nimal **ne lu** hattiya binde  
 Nimal EVAL EVID pot broke-E  
 'It is said that ????? '
- (29) \*Nimal hattiya binda **ne lu**  
 Nimal pot broke EVAL EVID  
 'It is said that ?????? '

The mood/modal head positions for the root clause so far are as follows:

- (30) MD Speech Act > T > MD Evaluative > Md Evidential

### 3.3.3 Conditional Modality: '-oth/thoth' and 'nang'

Conditional modality expresses counterfactual or hypothetical propositions and hence is naturally included in the propositional modality. Palmer (2001) has listed it under propositional modality. Nordstrom (2010) too includes it under propositional modality. She also observes that in some languages, the conditional and the irrealis or subjunctive may be expressed by the same morpheme.

Bhatt and Pancheva (2006) define the conditional as structures involving an adverbial clause interpreted as stating the conditions under which the



proposition expressed by the main clause is true. Conditionals involve a bi-clausal structure with the antecedent adjoined to the main clause. They observe that conditionals share the properties of adverbial clauses. For example, they highlight that conditional clauses are introduced by a CP related element: a complementizer or an operator in [Spec, C]. Also, conditional clauses may precede or follow the main clause.

Bhat and Pancheva further highlight that languages use a variety of means to mark conditional modality: Foremost among them is the overt marking of the protasis (the antecedent of the conditional) through a free morpheme, verb inflection (verb in the protasis), or verb movement. Among the other devices that mark the protasis are, the temporal Wh-pronouns, interrogative complementizers (if), imperative verbs, and subjunctive morphology. (31) illustrates this for English (protasis underlined) (Bhatt and Pancheva 2006: 639).

(31) If Andrea arrives late, Clara will get upset.

However, the explicit marking of the antecedent is not cross linguistically obligatory, as Hindi and Bengali facts reveal. In Hindi, for example, it is the presence of the *then* which is obligatory, not the presence of *if*:

Hindi (Bhatt and Pancheva 2006: 644)

(32) (Agar) mehnat karoge to safal hoge  
 If hard-work do-Fut.2PL then successful be-Fut.2PL  
 'If you work hard, you will be successful'

Conditional modality is attested in Sinhala both in the form of a grammatical category on the verb (hence mood) and the particle *nang* that has a relatively free distribution. Conditional mood is realized as a suffix (-oth/thoth) on the verb of

the protasis (33)-(34). The ungrammatical (34) indicates that the matrix verb too should be irrealis in this case. In (35), the conditional interpretation is realized by *nang*.

- (33) Nimal gaha kaepuv**oth**, amma eyaa ta banee **vi**  
 Nimal tree cut(COND), mother him DAT scold **FUT**  
 'If Nimal cut the tree, mother will scold him'

- (34) \*Nimal gaha kaepuv**oth**, amma eyaa ta **baenna/baenala**  
 Nimal tree cut(COND), mother him DAT **scold(PST)/(PTCP)**  
 'If Nimal cut the tree, mother scolded/has scolded him'

- (35) Oya elavalu kadala thibuna **nang** mata uyanna thibuna  
 You vegetables plucked(PTCP) had **nang** I(DAT) cook(INF) had  
 'If you had plucked vegetables, I would have cooked (them) '

These two constructions have different syntactic and temporal properties. The mood suffix *-oth/thoth* can have scope only at the clausal level as in (33). Further, it can denote only irrealis with respect to both the antecedent and the consequent (33)-(34). Therefore, this particular construction corresponds to the hypothetical conditional, which is the most common type in many languages.

On the other hand, the particle *nang* can have different temporal properties (36) in the antecedent and the consequent.

- (36) Oya iiye elavalu kaeduwa **nang** mama ada uyanava  
 You yesterday vegetables plucked(PST) nang I today cook(PRS)  
 'If you plucked vegetables yesterday, I cook (them) today'

Example (36) indicates that this particular structure corresponds to a subjunctive. This particular interpretation is not available with the inflectional *-oth/thoth* as shown in (37).

- (37) \*Oya iiye        elavalu        kaeduwoth,        mama ada        uyanava  
 You   yesterday vegetables plucked(COND), I        today cook(PRS)  
 'If you plucked vegetables yesterday, I cook (them) today'

The ungrammaticality further confirms the restrictive distribution of the *-oth/thoth* conditional. In particular, it is limited only to the domain of hypothetical conditionals. On the other hand, the *nang* particle is used to express what Bhatt calls the relevance conditional as well (38). Example (38) conveys 'if the person is thirsty now' compared to the hypothetical '*become*' in (39).

- (38) Oyaa-ta thibaha **nang** mata        kiyanna  
 You-DAT thirsty nang        I-DAT        tell(INF)  
 'If you **are** thirsty, tell me'

- (39) Oyaa-ta thibaha **unoth** mata        kiyanna  
 You-DAT thirsty        be COND        I-DAT        tell(INF)  
 'If you **become** thirsty, tell me'

Another unique property of the *nang* conditional is that it can have different scope properties. That is, it can have scope at constituent level as well as at clausal level, as shown in (40)-(41). When it attaches to a constituent, the verb bears *-e* suffix (40). When it has scope at clausal level then there is no *-e* suffix on the verb (41).

- (40) Nimal **nang** gaha kaepuwe, amma eyaa ta banee vi  
 Nimal nang tree cut-**E**(PST), mother him to scold FUT  
 'If it is Nimal who cut the tree, mother will scold him'
- (41) Nimal gaha kaepuwa **nang**, amma eyaa ta banee vi  
 Nimal tree cut(PST) nang, mother him to scold FUT  
 'If Nimal cut the tree, mother will scold him'

However, we need to examine whether both constructions correspond to conditional modality. There are obvious interpretive differences between the two, notably brought out by the different scope properties of the particle *nang*. In (40), the modal scopes over the DP, but in (41), it scopes over the TP, and therefore, the TP corresponds to an antecedent.

Now in Sinhala, *nang* is also the topic marker and it can topic mark any constituent (42). Its scope properties are restricted to constituent level (43).

- (42) Nimal **nang** vibhage pass una  
 Nimal TOP exam pass was  
 'As for Nimal, he passed the exam'
- (43) \*Nimal vibhage pass una **nang**  
 Nimal exam pass was TOP  
 ???

However, still we need to determine whether *nang* is a topic marker or a conditional particle, when it occurs in a bi-clausal structure as in (44).

- (44) Nimal vibhage pass una **nang**, mama eyata thaegi denava  
 Nimal exam pass was nang, I he-DAT presents give(PRS)  
 'If Nimal passed the exam, I would reward him'

Haiman (1978) argues for a shared semantic basis for conditional clauses and topics, on the basis of the superficial forms of each construction. He observes that one or more of the following is true in the languages he discusses (Haiman: 3).

- a) The characteristic mark of the conditional and that of the topic will be identical.
- b) Both will be identical with a third category, the interrogative
- c) The characteristic marks of the conditional and that of the topic will be distinct, but one will be paraphrasable by the other.

Haiman substantiates these claims with cross linguistic evidence. In Hua, (a Papuan language), *-mo* particle which marks conditionals is also a potential topic marker, and, the *-ve* particle, which is the actual topic marker, is also the interrogative marker (45). Note that according to (b) above, conditionals and topics share with the interrogative (Haiman 1978: 8)

- (45) E -si -ve baigu -e  
 Come 3sg.fut. INT will stay 1sg.  
 'Will he come? I will stay; If he will come, I will stay'

Other cross linguistic evidence Haiman provides are: in Turkish, the conditional suffix *-sA* may be replaced by the polar (questions marked by subject-verb inversion) interrogative suffix *-mI*. The composition of the conditional conjunction in Russian *esli* (which is a transparently compound word) is *est* 'is' plus *li* 'whether', the polar interrogative complementizer. In Mayan, *mi* 'if' is

equivalent to *mi* 'whether', the marker of polar questions. In Japanese, the topic marker *-wa* alternates in some dialects with the *-ya* which is identical with the morpheme expressing both interrogation and non-exhaustive conjunction.

Haiman further denotes that the polar questions also resemble conditional protases. In English, polar interrogative *whether* may be replaced by the conditional *if* in indirect questions (*I don't know whether/if he is at home*) (Haiman: 9).

The possibility of conditionals to be paraphrased by questions is based on Jespersen's (1940) analysis of a conditional protasis as a mini-conversation with two participants. This also establishes the similarity with topics. (Haiman: 9)

(46) A: Is he coming

(47) B: (Yes)

(48) A: Well then, I'll stay

A's purpose in asking (46) is to obtain B's assent to the validity of the proposition expressed in the declarative counterpart of (46). Once this assent has been given, it follows that both A and B will agree on the validity of (46), which then functions as the basis for further discussion (48). By (46) and (47), the declarative counterpart of (46) is established as a given, or a topic, in (48).

Haiman claims that a frequently noted characteristic of topics, and one which distinguishes them from subjects, is their tendency to occur sentence initially. Since topics convey 'old' or 'given' information, what is uttered first in a sentence will be 'older' information than what comes next. Contrastive topics tend to occur not only as the first constituents in their sentences, but also as left

dislocated elements. Conditional clauses also share these properties. They are contrastive because they are selected.

Sinhala shares with some of the observations noted above which seem to question our analysis of *nang* as a conditional mood marker. In fact, superficial structural similarities seem to mask the topicalized clause as a true conditional. For example, as observed by Hyman (1978), the conditional clause and the topicalized elements occur sentence initially as (49) and (50) indicate. Example (49), which has the antecedent clause first is more natural and preferred by the native speakers than (50), with the reverse order.

- (49) Oya gaha kaepuwoth, mama policiya-ta yanava  
You tree cut-COND, I police-to go(PRS)  
'If you cut the tree, I will go to the police.'

- (50) ?mama policiya-ta yanava, oya gaha kaepuwoth  
I police-to go(PRS), you tree cut-COND  
'I will go to the police, if you cut the tree'

*Nang* clause seems to follow the same pattern (51)-(52). Native speakers prefer the *nang* clause first, as in (51).

- (51) Oya gaha kaepuwa nang, mama policiya-ta yanava  
You tree cut (PST) nang, I police-to go(PRS)  
'If you cut the tree, I will go to the police.'

- (52) ?mama policiya-ta yanava, oya gaha kaepuwa nang  
I police-to go(PRS), you tree cut(PST) nang  
'I will go to the police, if you cut the tree'

However, the most crucial evidence to conclude that *nang* is not a conditional marker comes from its occurrence with *-oth*, the hypothetical conditional marker. In (53), *nang* co-occurs with *-oth*. If *nang* is a conditional marker, why should it co-occur with *-oth*, double marking the clause as a conditional?

- (53) Oya gaha kaepuw-**oth nang**, mama policiya-ta yanava  
 You tree cut-COND nang, I police-to go(PRS)  
 'If you cut the tree, I will go to the police.'

According to native speaker judgment, *nang* in (53) imparts some emphasis to the act of cutting the tree. It would mean, '*if you definitely cut the tree, then I will go to the police*'. Hence, in this case, the topic status of *nang* is not exactly clear. This contrasts with (54) where *nang* scopes over a DP and it has a clear topic reading.

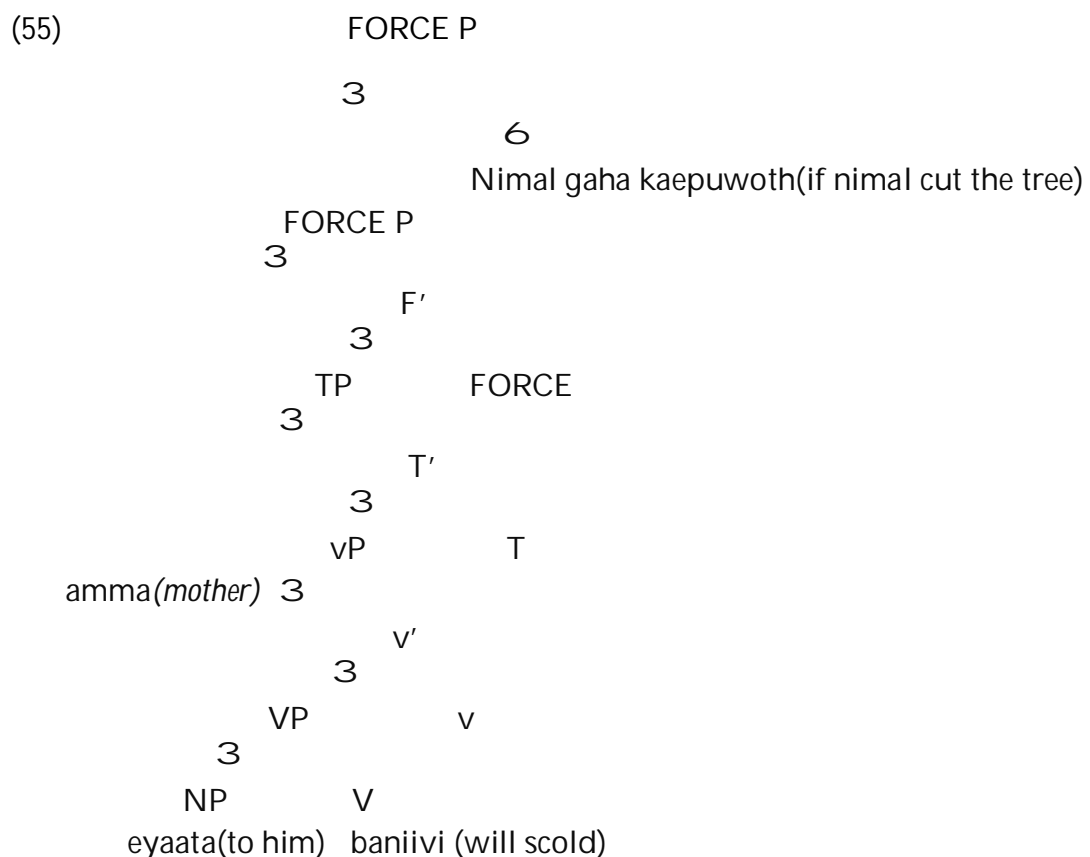
- (54) Nimal nang vibhage pass-una  
 Nimal TOP exam pass-was  
 'As for Nimal, he passed the exam.'

What seems to be happening in Sinhala in the case of a clause marked with *nang* (as in (35), (36), (38), (41), (51)) is that topic marking is coerced into a conditional interpretation. However, as the contrast between the constituent level and clausal level examples indicate, only clausal topics seem to be coerced into expressing a conditional reading. Therefore, I conclude that *oth/thoth* is the true conditional marker in Sinhala.

Now, we need to investigate the structural position of the conditional head – *oth/thoth*. The conditional construction with *oth/thoth* can either precede or follow the consequent and hence share with the adverbial clauses. However, native speakers prefer the order 'conditional clause first and the consequent next'.



Hence, I propose that the conditional clause is adjoined (either right or left) to the TP. As for the conditional head, I propose that it belongs to the C-domain, as it is in the case of adverbial clauses. In particular, I propose that *-ot/thoth* occupies Rizzi's FORCE position in the antecedent clause by virtue of which, it types the clause.



### 3.3.4 Epistemic Modality: “Vage”

Epistemic modality expresses the speaker's degree of confidence or the commitment to the truth of the proposition (based on the kind of information he/she has). When the speaker uses the modals *may*, or *can*, the weak epistemic modals in English, such use would indicate a lower commitment to the truth of the speaker's utterance. On the other hand, the strong epistemic modals *must* or

*shall* express a strong commitment to the truth of the proposition. In English, for example, the epistemic use of *must* expresses a confidence stronger than that expressed by the epistemic uses of *should*.

In Sinhala, epistemic modality is expressed by a number of particles/lexical items, of which, *vage* is one. *Vage* is a weak epistemic modal as the speaker does not make much commitment to the truth of the proposition when he uses *vage*. In this section, we will determine its exact structural position with respect to the other mood/modal particles we have already examined (see Chapter 5 for a full discussion of *vage*). First, let us examine this with respect to the root clause. As a modal particle, we expect *vage* to occur at XP level and at clausal level both, just as we observed with evidential *lu* and evaluative *ne*.

- (56) Aluth mahattayek **vage** daen vaeda balanne  
 New gentleman (INDF) EPIS now work oversee-**E**(PRS)  
 'The one who is supervising work now seems to be a new gentleman'

Note that, as in the case of the other modal particles, the verb takes the –e suffix. *Vage* has scope over the DP *new gentleman* and marks a weak commitment on the part of the speaker to the truth regarding the gentleman being the supervisor. He might be wrong, and it may not be a new gentleman who is the new supervisor. That is, as an epistemic modal, *vage* is speaker oriented in that *vage* expresses speaker's subjective attitude toward the factuality of the proposition.

*Vage* can also have scope at clausal level, just as any other modal particle we examined in the preceding sections (57).

(57) Aluth mahattayek daen vaeda balanava **vage**

New gentleman (INDF) now work oversee(PRS) EPIS

'Seems a new gentleman is supervising work now '

Once again the sentence conveys a weak commitment to the truth of its proposition. Interpretively, (57) differs from (56) narrow scope reading, as, in (57), the whole proposition shows weak epistemic modality. It may be that the whole proposition is wrong as the speaker is misled/has misjudged. Also, the verb does not take –e morpheme as it is in the case of mood evidential or evaluative having scope over the whole clause.

In order to determine its structural position, let us see its distribution with respect to the other mood/modal particles.

(58) Aluth mahattayek vage lu/ ne daen vaeda balanne

New gentleman (INDF) EPIS EVID/EVAL now work oversee-**E**

'It is said that the one who is supervising work now seems to be a new gentleman/ shared information'

(59) Aluth mahattayek daen vaeda balanava vage lu/ ne

New gentleman (INDF) now work oversee(PRS) EPIS EVID/EVAL

'Seems a new gentleman is supervising work now, it is said/shared information'

The epistemic *vage*, just as evidential and evaluative modals, is not allowed in embedded contexts- either marking narrow or wide scope. The ungrammaticality of (60) with narrow scope and (61) with wide scope indicates this<sup>3</sup>.

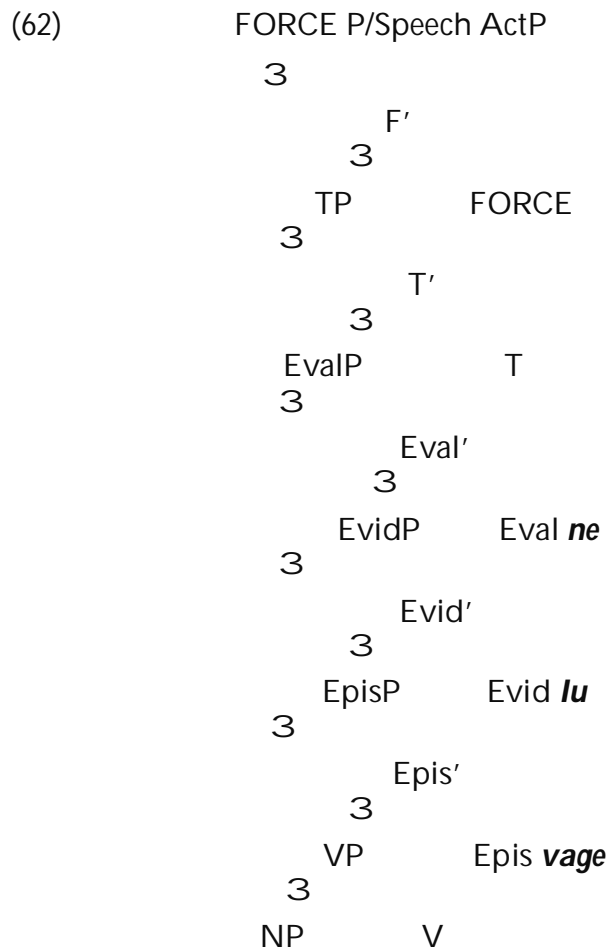
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<sup>3</sup> Both (60) and (61) improve with the matrix predicate *kiuva* (said). Since *kiuva* (said) does not show proper diagnostics, I ignore this fact here.

(60) \*[Aluth mahattayek **vage** daen vaeda balanne kiyala]  
 [New gentleman(INDF) EPIS now work oversee-**E** COMP]  
 Nimal dannava  
 Nimal knows  
 'Nimal knows that it seems a new gentleman is supervising work now'

(61) \*[Aluth mahattayek daen waeda balanava **vage** kiyala]  
 [New gentleman(INDF) now work oversee EPIS COMP]  
 Nimal dannava  
 Nimal knows  
 'Nimal knows that a new gentleman seems to be supervising work now'

Based on the above, I determine that the structural position of *vage* is below evidential and evaluative modality positions in the root clause. In Cinque's hierarchy, the epistemic modal occupies a higher position, but still lower than the moods evidential and evaluative. In Sinhala too, the epistemic modal *vage* occupies the same structural position as in Cinque's. Structure (62) illustrates these head positions.



The modal head positions for the root clause so far are:

(63) MD Speech Act > T > Md Evaluative > MD Evidential > Md Epistemic  
(*vage*)

### 3.3.5 'Aethi'

In table (3), I have listed *aethi* as an epistemic modal marker conveying weak epistemic attitude to the proposition. In this section, I intend to examine this lexical item in more detail in order to ascertain its exact categorial status. Let us first examine its distribution and semantic properties.

*Aethi* conveys a meaning similar to *might be/might have* in English. An utterance with *aethi* is usually followed by (though not compulsory) a second complementary utterance ‘*but I don’t know*’ which further conveys a speaker’s lack of commitment to the truth of the utterance. *Aethi* contrasts with the other modal markers such as evidential and evaluative, as *aethi* can attach only to a present (progressive) or participle verb form (64). Crucially, its inability to occur with the past tense verb (which is usually, strongly indicative) also suggests the weak epistemic nature of this particle.

- (64) Nimal    pol            kadanava/kadala    *aethi*  
       Nimal    coconuts   pluck(PRS)/(PTCP)   EPIS  
       ‘Nimal might be plucking coconuts (now)/Nimal might have plucked coconuts’

The modal is evaluated at the utterance time (UT), and is speaker oriented, just as it is so with epistemic modality. However, *aethi* differs from the other modals in that it cannot have narrow scope: that is, it cannot scope over a preverbal DP, but can show scope only at clause level (65).

- (65) \*Nimal    ***aethi***    pol            kadala            kaeduwe  
       Nimal    **EPIS**    coconuts   pluck(PTCP)   plucked-E  
       ??

The ungrammaticality indicates that the weak epistemic *aethi* should occur quite closer to the vP and not at the level of DP. Let us examine the structural position of the *aethi* modal with respect to the other modal particles we have examined so far. Example (66) indicates that *aethi* can occur in the scope of the evidential *lu*, but not with the epistemic *vage*. Example (67) indicates that *aethi* can occur with

the evaluative *ne* and the yes/no interrogative. Both illustrate clause level scope marking of the modal particles.

- (66) Nimal pol kadala aethi lu, \*vage  
 Nimal coconuts pluck(PTCP) EPIS EVID \*EPIS  
 'It is said that Nimal might have plucked coconuts'

- (67) Nimal pol kadala aethi ne da?  
 Nimal coconuts pluck(PTCP) EPIS EVAL Q  
 'Nimal might have plucked coconuts, isn't it? '

Example (66) indicates that *aethi* is ungrammatical with the epistemic *vage*. This is as expected as two weak epistemic modals should not be able to co-occur. Also, as expected, *aethi* is fine with the evidential, and evaluative modals and the yes/no interrogative. *Aethi* is distinguished from *vage* in that it appears to form a constituent with the verb, as none of the other modal particles can intervene between the verb and *aethi*. All these evidence denote that *aethi* can be a weak epistemic modal lexicalized in the language.

However, the above observations also indicate a number of crucial facts that challenge our assumptions about *aethi*. To begin with, *aethi* does not mark narrow scope. This also indicates the absence of –e suffix, which is one of our strong diagnostics of modality. Further, *aethi* occurs only with the present progressive and participle verb forms, whereas the other modal particles show no restriction in their verb-form selection. Finally, *aethi* can occur in an embedded clause (68), whereas the other modal particles we have examined thus far cannot be so used.

- (68) Ajith kiuwa [Nimal pol kadanava aethi kiyala]  
 Ajith said [Nimal coconuts pluck (PROG) aethi COMP]  
 'Ajith said that Nimal might be plucking coconuts now'

Gair (1998) lists *aethi* as a quasi verb together with *naeae* 'not' and *baeae* 'impossible/can't'. They have a very limited paradigm, not exceeding 6 forms, compared to the 'full' verbs that have a range of inflectional possibilities. The paradigm for *aethi*, as illustrated in Gair (1998, 18) is presented in Table (4) with some modifications.<sup>4</sup>

**Table 4: *Aethi***

Form	<i>aethi</i>	Example
Basic	<i>aethi</i>	Nimal pol kadala aethi Nimal coconuts pluck(PTCP) aethi 'Nimal might have plucked coconuts'
Adjectival	<i>aethi</i>	Nimal-ta godak salli aethi Nimal-DAT much money aethi 'Nimal might be having a lot of money'
Emphatic	<i>aeththe</i>	Nimal tamai pol kadanna aeththe Nimal FOC coconuts pluck(INF) aethi-E 'It is Nimal who might have plucked coconuts'
Conditional	<i>aethoth</i>	Pol kadala aethoth, Nimal tamai Coconuts pluck(PTCP) aethi(COND) Nimal FOC 'If coconuts have been plucked, it is Nimal'
Concessive	<i>aethath</i>	Pol kadala aethath mata prasnayak naehae Coconuts pluck(PTCP) aethi(conces) I(DAT) problem no 'Even if coconuts have been plucked, there is no problem to me'

<sup>4</sup> Gair lists a participial form, *aethua*, which I have not included in the table as this form does not occur with a verb



The forms emphatic, conditional and the concessive share the same inflectional morphemes with verbs of the same forms, as shown in the following paradigm.

**Table 5: *aethi* and *kanava* ‘eat’**

	<b>Emphatic</b>	<b>Conditional</b>	<b>Concessive</b>
<i>aethi</i>	<i>aeththe</i>	<i>aethoth</i>	<i>aethath</i>
<i>kanava</i> ‘eat’	<i>kaeeve</i>	<i>kaeevoth</i>	<i>kaeevath</i>

Despite the above inflectional similarities, however, *aethi* does not show tense. In line with Gair (1998), I too label *aethi* as a quasi verb.

### **3.3.6 Irrealis –ta**

For Mithun (1999) (as quoted in Palmer 2001) the realis-irrealis distinction is that “the realis portrays situations as actualized, as having occurred or actually occurring, knowable through direct perception. The irrealis portrays situations as purely within the realm of thought, knowable only through imagination” (Palmer: 1). Palmer observes that realis/irrealis has a binary value with respect to the mood system. In European languages, the indicative and subjunctive correspond to the realis/irrealis distinction respectively, but, modal markers have differentiated values on the realis-irrealis scale. According to him, propositional modality is concerned with the factual states of the proposition, and, event modality is irrealis, as it encodes ‘potential events’.

In Chapter 2, in our discussion of the inflected complementizers we came across the –ta inflected form of the *bava* complementizer (*bava-ta*). We analyzed *bava* as the Fin head of Rizzi’s C domain, and in Sinhala, it encoded factivity. Its feature set included [+Finite, -Force], whereas *kiyala* complementizer was [+Finite,

+Force]. We analyzed the inflected *-ta* as a head in the C-domain. Examples (69)-(72) illustrate the structural position of *-ta* irrealis head. The ungrammatical (71) indicates that *threaten* selects the irrealis *-ta* head, rather than the Fin (*bava*) alone. The ungrammatical (72) indicates that the *-ta* head does not select a past tense verb, thereby further confirming the irrealis nature of *-ta*.

(69) Mama [Nimal kaareka kudukarapu bava-ta] sahatika venava  
 I [Nimal car destroy(PTCP) bava-ta] attest Be  
 'I attest Nimal to have destroyed the car'

(70) Nimal [kaareka kudukarana bava-ta] tharjanaya kara  
 Nimal [car destroy(PRS) bava-ta] threaten did  
 'Nimal threatened to destroy the car'

(71) Nimal [kaareka kudukarana \*bava] tharjanaya kara  
 Nimal [car destroy(PRS) FIN] threaten did  
 'Nimal threatened to destroy the car'

(72) Nimal [kaareka \*kudukaraa bava-ta] tharjanaya kara  
 Nimal [car destroy(PST) bava-ta] threaten did  
 'Nimal threatened to destroyed the car'

As for the structural position of the irrealis *-ta*, I propose that it occurs higher than Fin (*bava* complementizer). This observation can be tested with the other modal heads that we examined in the preceding sections (73).

- (73) Nimal kaareka kudukarana bava-ta \*lu ne da tharjanaya kare?  
 Nimal car destroy(PRS) bava-ta \*EVID EVAL Q threaten didE  
 'It is said, is it to destroy the car that Nimal threatened? (shared information)'

The example shows that *-ta* can come under the scope of moods EVAL and INT, but not the evidential: However, these epistemic modal heads are of the higher clause. We have already observed that the epistemic modals are not part of the embedded periphery. The ungrammaticality of the Evid *lu* with irrealis *-ta* stems from the semantic anomaly that this combination results in. Hence I conclude that *-ta* occurs higher than Fin (*bava*) of the embedded clause (74) and therefore, *-ta* is an irrealis mood head in the C domain. We will examine its structural position in the C-domain with respect to other C- heads in our discussion of topic/focus in Chapter 4.

- (74)
- ```

      ForceP
      3
      Force
      3
      -ta
      3
      Fin
  
```

### 3.3.7 Negation: Prohibitive modality, Negation of Possibility and Probability

The existence of a number of similarities between the interrogative and negative warrants the analysis of negative mood side by side the interrogative. Haegeman (1995) provides a number of empirical arguments for relating the syntax of sentential negation to that of interrogative sentences, such as the licensing of polarity items and subject-auxiliary inversion. Cinque (1999) does not include a NEG projection in his hierarchy; nevertheless he suggests that NegPs may be

separated in many different positions among the adverb related functional projections. He attributes this variation as stemming from a spell out option: whether a language lexicalizes a higher or lower NEG. He notes that Zanuttini (1997) argues for at least four distinct positions for NEG in Romance, one below C, and others interspersed among the lower AdvPs.

Sinhala has a number of NEG particles with distinct distributions. The most relevant for our present discussion are *naehae* (sentential negator), *epa* (prohibitive), and *baehae* (negation of possibility). All these NEG particles are post-verbal, and the verbal forms they select are also distinct. Finally, there is another negator *nemei*, which is the focus negator in Sinhala. This differs from the rest as it is preverbal, and can have only phrasal scope. We will explore *nemei* further in our discussion of focus and the left periphery later; here, I simply discuss the distribution of each NEG in order to determine their structural position in the clause.

### 3.3.7.1 “*Nehae*”: The Sentential Negator

*Nehae* is a sentence level negator. Of the following examples, (75) indicates negation of a proposition and the verb is in the past. Example (76) too indicates negation of a proposition, but, in contrast, the verb shows perfective aspect.

(75) Nimal    pol            kaeduwe    naehe  
       Nimal    coconuts plucked-E NEG  
       ‘Nimal did not pluck coconuts’

(76) Nimal    pol            kadala            naehe  
       Nimal    coconuts pluck(PTCP) NEG  
       ‘Nimal has not plucked coconuts’

The presence of NEG is also indicated by verbal morphology, the –e suffix in the verb. This is so in the present tense as well, though not in participle forms. Further, NEG comes under the scope of moods epistemic, evidential, and evaluative. Therefore, NEG *naehae* occurs below evidential, evaluative and epistemic modality (77).

- (77) Nimal pol kadala naehe vage/lu ne  
 Nimal coconuts plucked(PTCP) NEG EPIS/EVID EVAL  
 'Seems Nimal has not plucked coconuts/ it is said, shared information'

The following head positions illustrate this.

- (78) MD Speech Act > T> INT > MD Evaluative > Md Evidential > Md  
 Epistemic (vage) > Sent Neg (Naehae)

### 3.3.7.2 Prohibitive Neg: “epa”

Prohibitive modality too shows a similar distribution to that of the above. That is, the prohibitive modal *epa* can occur under the scope of those higher modals evaluative and evidential (79), although not with the epistemic (80).

- (79) Oyata Pol kadanna epa lu ne  
 You(DAT) coconuts pluck(IMP)] NEG EVID EVAL  
 'You should not pluck coconuts, it is said, shared information'

- (80) Oya/oyata Pol kadanna epa \*vage lu ne  
 You/dat Coconuts pluck(IMP) NEG \*EPIS EVID EVAL  
 ???

The incompatibility of prohibitive modality with the epistemic can be explained in terms of the semantic anomaly that results when the two co-occur. However,

this indicates that the two NEGS we have discussed so far have a differential distribution. The sentential NEG *naehae* can occur with the mood epistemic (below epistemic), whereas the prohibitive *epa* cannot.

By using a prohibitive, the speaker is demanding the addressee to stop an ongoing activity or to refrain from starting some other activity. The speaker expects that the addressee will comply with this demand. In this sense, the prohibitive is another form of imperative, and hence is a speech act. In Sinhala, the infinitive and the imperative verb forms are the same (*-nna*). Therefore, rather than the infinitive, I would say that the prohibitive modality uses the imperative verb form in the above examples and I have glossed it so. A number of other languages too use an imperative verb form in the prohibitive modality. Abraham and Leiss (2008) observe the same for many Slavic languages, Narrog (2009) for Japanese, and Frajzyngier (2002) for Lele, an East Chadic language: In the above prohibitive modality too, NEG has scope over the whole utterance. When evidential or evaluative modality occurs with the prohibitive, the former have scope over the latter as illustrated in (81).

- (81)    mata        pol            kadanna        epa lu/        ne    da?  
           I DAT      Coconuts   pluck(IMP)]   NEG EVID/   EVAL Q  
           'Am I not permitted to pluck coconuts, as they say/isn't it?'  
           'Am I prohibited to pluck coconuts, as they say/isn't it?'

With these observations, we can project the structural position of the prohibitive NEG as follows:

- (82)    MD Speech Act > T> INT > MD Evaluative > Md Evidential > Md  
           Epistemic (vage) > Sent Neg (Naehae)/ Md Prohibitive (epa) >

Now let us examine the negation of possibility in Sinhala expressed with *baehae*.

### 3.3.7.3 “*Baehae*”

Example (83) indicates the expression of an impossibility/possibility.

- (83) Nimal-ta pol        kadanna    baehae/ puluwan  
      N(DAT)   coconuts pluck(INF) NEG/    possible  
      'Nimal cannot pluck coconuts/Nimal can pluck coconuts'

In (83), *Baehae*, the possibility negator is in complementary distribution with *puluwan* (can) (see section 3.3.8) the modal denoting possibility in Sinhala. Both take the infinitive verb and are clause peripheral.

The root modal interpretation of the NEG can be tested with some diagnostics. Several properties of the root modal versus epistemic have been shown to hold cross linguistically. Zagana (2007) observes that the root modal is subject oriented; i.e., the modal is predicated of the subject. She presents the following examples (Zagana: 277).

- (84) The doctor may/must examine John

- (85) John may/must be examined by the doctor

Zagana observes that in (84), the doctor can be described as having an ability or need to examine John: In (85), John has the ability or need to be examined. She indicates that this is consistent with the generalization that the root modal holds at the time specified by the tense of the clause. Viewed from this perspective, it is evident that Nimal, the subject in (83), has not only a modal relationship but also a thematic relationship to the modal particle. The modal requires an animate

subject, in this case a dative one. Hence, the dative subject is directly selected by the modal itself. Consequently, the subject orientation is obvious.

Modal evaluation time is another diagnostic we can employ to check the status of the modal. Zagana observes that, root modals are located in time by the tense of the clause. Zagana observes that, root modals are located in time by the tense of the clause. In a past tense, the modal state of the subject holds at past time; in a present tense clause, it holds at present time, e.g., English *can* and *could*. On the other hand, epistemic modals are located at the evaluation time of the clause: the utterance time for the root clause, and in some subordinate clauses, event time of the matrix verb. Example (86) with the modal predicate *baeri una* (could not) is evaluated in the past time. Similarly, its present tense form *baeri venava/baehae* (cannot) is evaluated in the present time. This further confirms the root modal status of the modal NEG *baehae*.

- (86) Nimalta      pol              kadanna      baeri-una  
        Nimal-DAT   coconuts    pluck(INF)   could- not  
        'Nimal could not pluck coconuts'

Now let us examine the structural position of the root modal NEG *baehae* with respect to the other modals.

- (87) Nimalta      pol              kadanna      baehae    vage/lu      ne      da?  
        Nimal-DAT   coconuts    pluck(INF)   NEG        EPIS/EVID   EVAL   Q  
        'Seems Nimal cannot pluck coconuts/ it is said: shared information: cannot he?'  
        'Cannot Nimal pluck coconuts, as they say': shared information

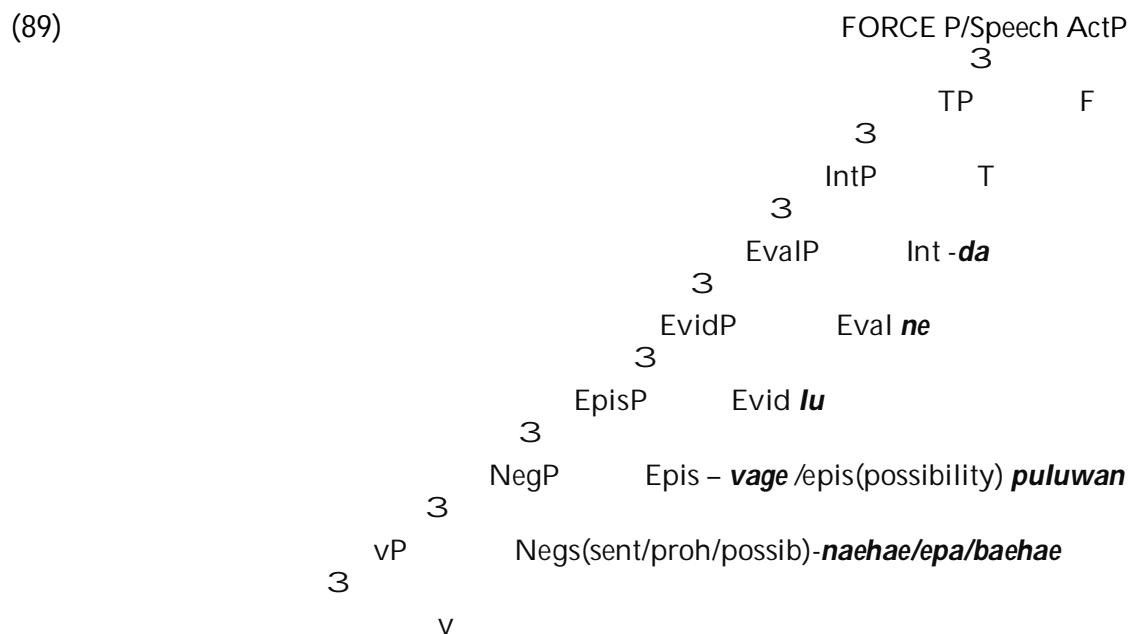
Example (87) indicates that the possibility NEG is the lowest and hence occupies a position closer to the vP. In that position, it comes under the scope of the higher



(epistemic) modals. This is in keeping with cross linguistic observations that root modals occur below the epistemic modals. This seems to hold for the Sinhala root modal NEG *baehae* as well.

Therefore, I propose that *baehae* is a vP level negator; Since all the negators we have discussed so far occur below the epistemic modals, and all are in complementary distribution with each other, I assume that all these negators share the same structural position, as represented in (88) and (89).

(88) MD Speech Act > T > INT > MD Evaluative > Md Evidential > Md Epistemic (vage) > Sent Neg (Naeahe)/ Md Prohibitive (epa)/Possibility Neg (baehae) > vP



Each NEG can occur in embedded clauses. Example (90) has sentential negation, (91) has prohibitive negation and (92) has possibility negation in the embedded clause respectively.

- (90) Ajith [Nimal pol kaeduve naehae kiyala] dannava  
 Ajith [Nimal coconuts plucked-E NEG COMP] know(PRS)  
 'Ajith knows that Nimal did not pluck coconuts'
- (91) Ajith Nimali-ta [PRO<sub>i</sub> pol kadanna epa kiyala] kiuwa  
 Ajith Nimali DAT [PRO<sub>i</sub> coconuts pluck(IMP) NEG COMP] said  
 'Ajith said to Nimal that he should not pluck coconuts'
- (92) Ajith [Nimal-ta pol kadanna baehae kiyala] dannava  
 Ajith [Nimal-DAT] coconuts pluck(IMP) NEG COMP] know(PRS)  
 'Ajith knows that Nimal cannot pluck coconuts'

To further diagnose its structural position, we cannot use the modals, as most do not (as I have shown earlier) occur in the embedded periphery. However, the INT/Q head *-da* is part of the embedded periphery, and therefore, we can test the structural position of these NEG particles with respect to INT/Q in the embedded periphery (93)-(94).

- (93) Ajith aehuwa [Nimal pol kaeduve naehae/nath -da kiyala]  
 Ajith asked [Nimal coconuts plucked-E NEG Q COMP]  
 'Ajith asked whether Nimal did not pluck coconuts'
- (94) Ajith aehuwa [Nimal-ta pol kadanna epa/baeri -da kiyala]  
 Ajith asked [Nimal-DAT coconuts pluck(IMP) NEG Q COMP]  
 'Ajith asked whether Nimal should not/cannot pluck coconuts'

Examples (93) and (94) indicate that the NEG particles occur below embedded Force and INT/Q. With this observation, the structural positions of the NEGS in the embedded clause so far are,

(95) Force > T > INT > Negs > vP

### 3.3.8 Root Modals: “*Puluwan*”

Thus far we have observed that the root modals are subject-oriented, and they are also located in the time of the clause. Further, Table (3) depicting different modals indicated that all root modal interpretations in Sinhala are realized by a single lexical item *puluwan*. This denotes permission, ability and possibility, and in all these cases, the verb form selected was the infinitive. Example (96) illustrates these observations.

(96) Nimal-ta natanna puluwan  
Nimal DAT dance (INF) can  
'Nimal can dance'

*Puluwan* also conveys epistemic interpretation when the matrix subject is in the nominative (97). (I return to a full discussion of *puluwan* in Chapter 6)

(97) Nimal natanna puluwan  
Nimal(NOM) dance (INF) can  
'Nimal might dance'

The epistemic *puluwan* with the nominative subject can come under the scope of EVID, EVAL and INT modals, except epistemic *vage* (98). Its incompatibility with epistemic *vage* is understood as we noticed earlier, two epistemic heads do not co-occur. On the other hand, the root modal *puluwan* with the dative subject can come under the scope of all the other modals (99).

(98) Nimal natanna puluwan \*vage, lu/ ne da?

Nimal(NOM) dance (INF)] can \*EPIS, EVID/ EVAL Q

'It is said that Nimal might dance /isn't it?'

(99) Nimal-ta natanna puluwan vage/ lu ne da

Nimal-DAT dance (INF) can EPIS/ EVID EVAL Q

'Seems Nimal can dance'

'It is said that Nimal can dance, Cannot he?'

In order to capture this scope and interpretive asymmetry between the two, the epistemic *puluwan* should occur higher in the structure. Its complementary distribution with epistemic *vage* suggests that *puluwan* too shares the same structural position with *vage*, and occurs below EVID, EVAL, and Q. On the other hand, the root modal *puluwan* occurs lower than all the other heads as it comes under the scope of the other modals. These two head positions are illustrated below.

(100) MD Speech Act > T> INT > MD Evaluative > Md Evidential > Md Epistemic possibility (Puluwan)/Md Epistemic (vage) > Sent Neg (Naeaehe) / Md Prohibitive (epa) / Possibility Neg (Baehae) > Root Modal ability (Puluwan) > vP

In (98) and (99), we examined the root and epistemic interpretation of *puluwan* with respect to other head positions. We are yet to examine the root interpretation of permission. In Sinhala, the same modal predicate *puluwn* conveys this interpretation too, as in (101). Here too, the modal predicate selects a dative subject.

(101) Oyaa-ta daen yanna puluwan

You-DAT now go(INF)] can

'You are permitted to go now'

As it was in the case of ability, here too *puluwan* can occur with the other modalities under their scope (102). However, the root modal interpretation of permission is conveyed only with the dative subject. This shows that both the ability and permission modality share the same structural dative subject position. The same head order that we noticed with respect to the root modal interpretation of ability holds here too, as shown in (102).

(102) Oyaa-ta iieye kalin yanna puluwan-una lu ne da?

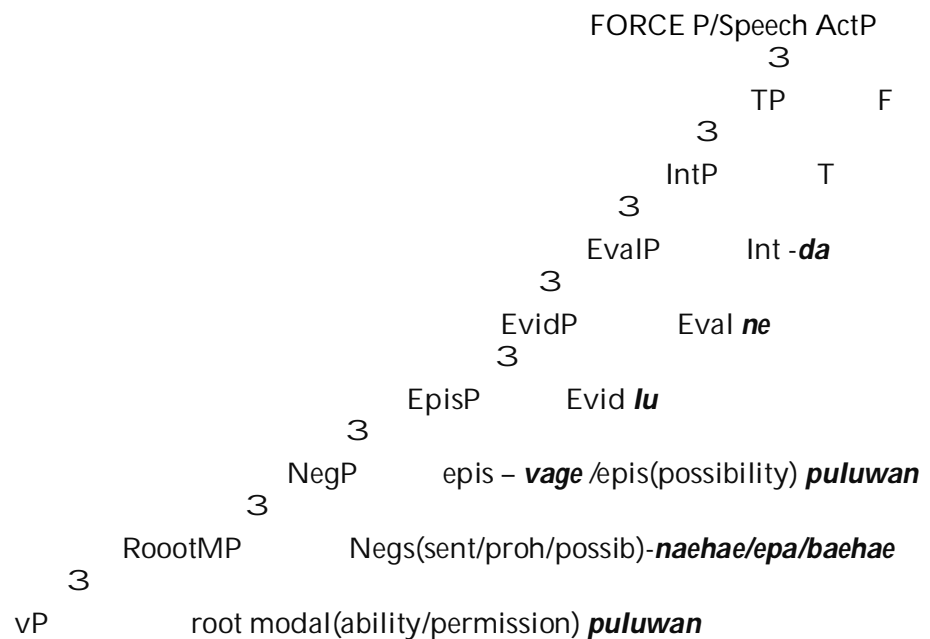
You-DAT yesterday early go(INF) can-was EVID EVAL Q

'People say you were permitted to leave early yesterday, weren't you?'

With these observations, the head orders of the modal functional heads we have examined so far are as follows.

(103) MD Speech Act > T> INT > MD Evaluative > Md Evidential > MdEpistemic possibility (Puluwan)/Md Epistemic (vage) > Sent Neg (Naeaehe) / Md Prohibitive (epa) / Possibility Neg (Baehae) > Root Modal ability/permission (Puluwan) > vP

(104)



The three modals (epistemic possibility, root ability and root permission) can occur in embedded clauses. We have already noticed that the evaluative, evidential and epistemic (vague) modalities are not part of the embedded periphery. The head positions for the embedded periphery are as follows,

- (105) Force > T > INT > MD Epistemic possibility (*puluwan*) > Sentential Neg (*naehae*)/ Prohibitive Neg (*epa*) / Possibility Neg (*baehae*) > Root Modal ability/Root Modal Permission (*puluwan*) > vP

To conclude, Table 6 illustrates the properties of modal particles in Sinhala that we have discussed so far.

**Table 6: Properties of Modal particles**

| Property                              | Epis modals | Root modals |
|---------------------------------------|-------------|-------------|
| Contrastive narrow scope possible     | ✓           | x           |
| -e suffix on the verb in narrow scope | ✓           | x           |
| Clausal level scope possible          | ✓           | ✓           |
| Ability to pied-pipe an XP            | ✓           | -           |
| Occur in root clause                  | ✓           | ✓           |
| Occur in embedded clause              | x           | ✓           |

### 3.4 A Feature Transfer/Inheritance Analysis of the Functional Sequence in Sinhala

Chomsky (1998, 1999, 2001, 2006) pursues the minimalist question ‘how close does language come to minimalist design, and, to what extent minimalist design specifications derive the properties of UG?’ Central to these minimalist developments are the operations merge, move, agree, feature valuation and feature transfer. With the formulation of the notion phase (Chomsky 2000), and CP and vP being treated as phases, v, T, and C have emerged as the core functional categories. Since then, the notion *phase* has undergone a number of revisions in subsequent work (2001, 2004, 2007, 2008). Chomsky (2004, 2005) has proposed that the fundamental criterion that determines a phase is internal to the computational system of the human language faculty (CHL). CP and vP are the domains in which agreement relations are established, so that phases are the minimal domains in which uninterpretable features are valued through the operation Probe-Goal-Agree. Chomsky (2005) proposes a reinterpretation of the relation between the functional heads C and T. The Agree and tense features associated with the inflectional system are now the properties of C. The subject

agreement and EPP (Extended Projection Principle) associated with T arise via a mechanism of feature transfer/inheritance, whereby these features are passed down from C to T. Therefore, T lacks uninterpretable features, unless it is selected by C. For this, Chomsky offers an argument from the conceptual-intentional (C-I) interface: feature inheritance is necessitated by the C-I imposed requirement that A/A-bar distinction must be structurally established. Passing down of C's Agree features to T creates the A position, (Spec-T), and the A-bar position created by movement for C's edge feature (EF), (Spec, C, phase edge). Similarly, spreading of Agree features from the  $v^*$  phase head to its complement V, and the consequent A- movement of the object to [Spec, V], analogously with subject raising to [Spec, T], yields the raising-to-object paradigm/ECM.

Richards (2007), building upon the transfer/inheritance proposal by Chomsky (2005), observes that feature inheritance captures the long-standing observation that raising/ECM (exceptional case marking)- infinitival T, which lacks C, also lacks phi-features and independent tense. He states that the feature inheritance model offers a more explanatory account of T's featural dependence on C, which had been a stipulation in the form of a selectional restriction- (C selects phi-complete T: V selects phi-defective T) in the previous model. He raises the question 'why does C need T in this model/why should feature inheritance exist at all?' He argues that the C-I imposed A/A-bar requirement is not a sufficient argument for feature transfer, as, with the possibility of multiple specifiers, C's features can be satisfied in-situ on C, with the [Agree] feature raising its goal DP to form a first specifier of C, and EF driven movement creating a second, outer [Spec, C] (the A-bar/operator position). Hence, he questions the necessity of a non-phase head T, in a system where all features belong to C and all operations are triggered by C.



As answer to these questions, Richards attempts to provide a principled account for feature inheritance, based on two basic assumptions: (i) value-transfer simultaneity and (ii) the Phase Impenetrability Condition.

The above premise (i) holds that value and transfer of [uFs] must happen together. The second premise has the effect that the edge and non-edge (complement) of a phase are transferred separately. That is, the edge (head/specifier), of the phase head must be carried over to the next phase creating an 'escape hatch' for trans-phasal movement. Richards claims that the incompatibility/inherent tension between the above two assumptions itself necessitates feature inheritance, thereby reconciling the two, following from optimal language design. That is, feature inheritance allows C's uninterpretable features to be valued at the same time they are transferred. "Since C will not be spelled out until the following phase level, its uF must descend onto the head that is spelled out by the PIC—namely, C's complement, T. The feature inheritance principle, has therefore been reduced to the level of principled explanation and perfect design—the system could not function without it" (Richards: 8). He concludes that C needs T to receive the phase head's uF, and for that matter, a phase head needs a non-phase head, without which, the Agree features on phase heads would be unable to carry out their work.

One of our central arguments is that we need both the cartographic frameworks and the minimalist model in order to explain the clause structure and information structure related phenomena in Sinhala. Pursuing this line of argument further, I now propose a feature transfer analysis for the Sinhala functional sequence, building upon both Chomsky (2005) and Richards (2008).

The discussion of mood/modality in Sinhala so far assumed that each modal head is a distinct head rigidly ordered vis-à-vis other modal heads. Among the modals, the epistemic modals (evidential, evaluative, epistemic) can mark both narrow and wide scope and an overt manifestation of narrow scope marking is the *-e* suffix, while *-a* suffix marked the indicative mood. Therefore, now we have to implement the following.

- a) The realization of the speech act mood.
- b) The marking of the head of the modal projection.
- c) The marking of the particular modal on the nominal/clause.

Since modals are in the lexicon, they must have semantic content. Following Cinque, I propose that all the heads in the functional sequence are potential heads in the Sinhala clause, of which some are morphologically realized, entering the derivation through the lexicon. I propose that all these modals modulate the properties of C/FORCE. Further, C encodes two types of features- DP or Agree-based features, and the discourse related features (P-features). C may transfer both type of features, and in this case, the relevant features are the Agree-based features and the modal-based features- EVID, EVAL, EPIS etc. The unvalued modal-based features of C get valued through the simultaneous feature transfer-valuation with a lower head/heads (Richards 2007), and I propose that the relevant head here is a modal.

In our discussion of the modals, we concluded that the modals evidential, evaluative, and epistemic occupy higher structural positions in the hierarchy. Hence, one of these heads or more (in case a number of them are present) are the potential candidates to receive the [u:modal-related] features of C and thus enter the valuation of those features of C. At the same time, C transfers its Agree-based

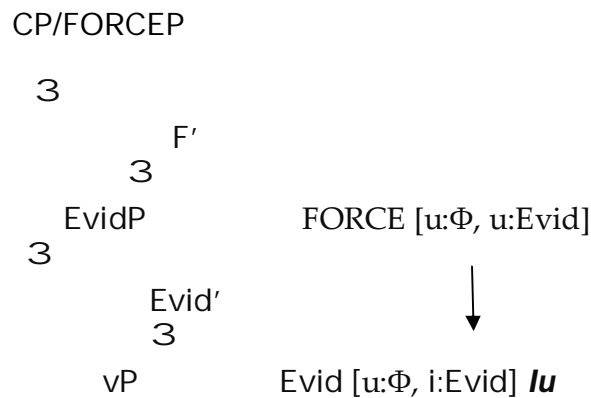
features too, to the modal head below. I consider the *-e* suffix as an overt reflex of this Agree relation, i.e., *-e* morphology indicates that an Agree-based feature of C/FORCE has been transferred to a modal. Also I propose that the particular DP enters the derivation with unvalued [Evid/Eval/Epis] features. The feature valuation (for contrastive evidential modality) proceeds as follows.

(106) Lexical Array introduced by C

{Force}:- intrinsic features: [u:Φ] + [P] features

{Mod}:- [i:Mod] feature

(107) Transfer valuation:-



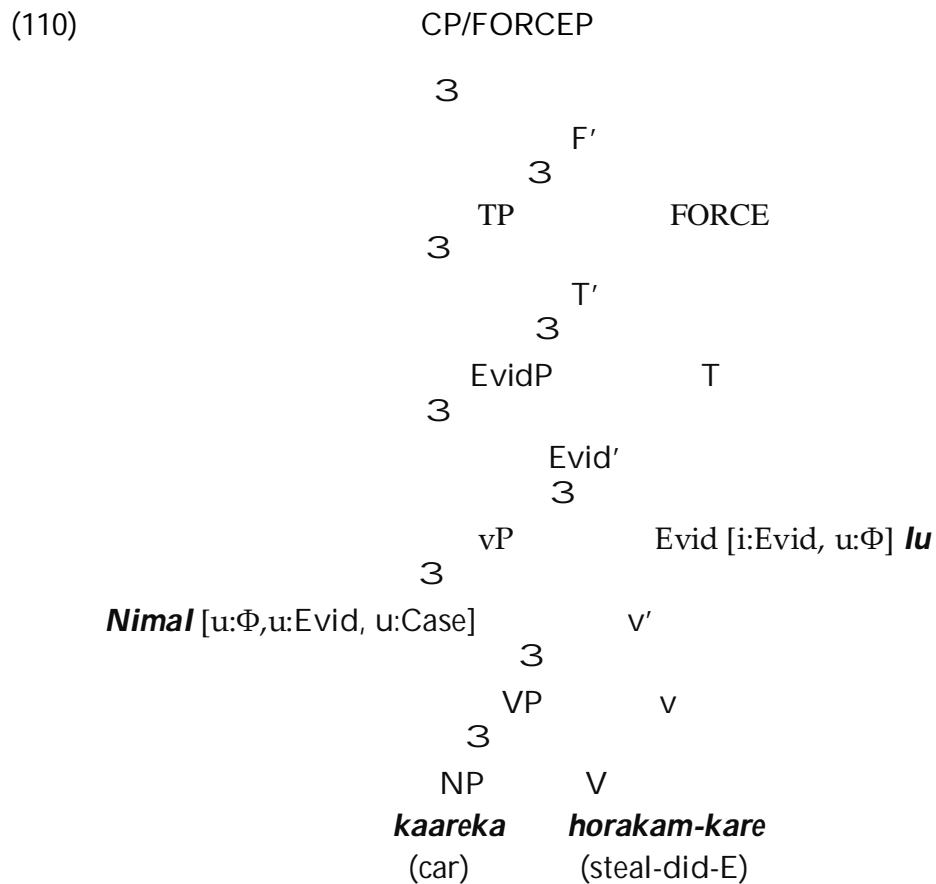
(108) The EVID head (*-lu*), after receiving the [u: Φ] of C, acts as a Probe and agrees with a DP that has the unvalued [Evid] features, and a [uΦ]. Consequently, it values the [u:Evid] features of the DP as [+EVID]. Since C does not transfer its Edge/EPP features to the modal head, there is no raising to the specifier of the modal<sup>5</sup> (109), (110). In contrast, the absence

<sup>5</sup> Case assignment/valuation of the subject DP can be explained in a number of respects:

It can be valued by the modal (evidential) Probe. (see Aygen, G. (2006) for a proposal that epistemic modality feature at T and Mood at C are components of nominative case licensing)

of -e suffix indicates that such feature transfer to a modal has not taken place (allowing T to value the  $[u\Phi]$  of C).

- (109) Nimal    lu    kaareka    horakam    kare  
 Nimal    EVID car            steal-        did-E  
 'Nmal, it is said, is the one who stole the car.'




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Nominative case can be the default (as it is unmarked in Sinhala as it is in many other languages) (Mcfadden, T & Sundaresan, S. 2011)

### 3.5 Conclusion

The focus of this chapter was mood and modality. We examined the grammatical mood, and epistemic and the root modals. One of our arguments was that modality in Sinhala is not determined by the modal head alone but also by the verbal morphology as well. In the proposals made here, the primary reflex of this phenomenon was the –e suffix that appeared on the verb in the case of narrow scope marking of a modal. We considered this as overt evidence for feature transfer/valuation between C and an epistemic modal head. We also noted that the Sinhala modal heads largely corresponded to Cinque’s universal organization in his functional sequence. Further, we observed that the embedded clause in Sinhala was relatively impoverished in terms of the functional hierarchy.

One notable observation that emerges out of our discussion is that Chomsky’s minimalist approach and the cartographic approaches of Rizzi and Cinque are not only necessary for the analysis of Sinhala mood/modal phenomena, but also that these approaches do interleave. We have already noted that Cinque modalities occur in Rizzi’s C domain. For example, mood irrealis –*ta* and the conditional modal head *oth/thoth* are located above Fin, thereby deriving a mixed cartography. Further, we have motivated a transfer/inheritance analysis for the cartographic heads- mood and modality. Hence, these observations raise the question: ‘how much universal is the universal’ of each framework?

In the next chapter we will discuss the C-domain of the Sinhala clause in terms of information structure in order to test the validity of our claim for a mixed cartography, and the claims for universality in each framework.

## CHAPTER 4

### INFORMATION STRUCTURE

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In the previous chapter we examined the mood/modality markers of Sinhala with respect to Cinque's (1999) universal functional sequence. The focus of the present chapter is the correlation between the information structure and the clause structure. We will examine how Wh and the information structure related particles of Sinhala, such as topic and focus are represented in the clause structure. We will also see to what extent we can formulate the discussion of these discourse particles in terms of Rizzi's (1997, 1999) left periphery analysis. In particular, with evidence from INT and FOC, I will show that a cartographic postulation of strict head positions in the C -domain cannot sufficiently capture the Sinhala facts.

Section 1 examines Wh questions of Sinhala in terms of the clause structure. Section 2 presents a discussion and an analysis of focus encoding in Sinhala. This is followed by a discussion and an analysis of topic marking in Sinhala in section 3. Section 4 introduces a unified cartography for the Sinhala information structure. Section 5 presents a brief chapter conclusion.

#### **4.1 WH and the Sinhala Clause Structure**

##### ***4.1.1 Yes/No Questions***

Sinhala employs a number of Wh question operators that show certain unique properties in their syntactic distribution, as listed in Table 1. This is followed by

an investigation of their differential distribution and interpretation in different question types.

**Table 1: Wh Words**

| Wh+Q                      | meaning               | Example                                                                                                    |
|---------------------------|-----------------------|------------------------------------------------------------------------------------------------------------|
| kauda                     | who                   | Kauda aave?<br>Who come-E(PST)<br>'Who came?'                                                              |
| mokak da                  | what                  | Oya mokak da daekke?<br>You what Q saw-E<br>'What did you see?'                                            |
| monava da                 | what                  | Oya monava da gatte?<br>You what Q bought-E<br>'What did you buy?'                                         |
| kohee da                  | where                 | Oya kohee da giye?<br>You where Q went-E<br>'Where did you go?'                                            |
| kohoma da                 | how                   | Oya kohoma da aave?<br>You how Q came-E<br>'How did you come?'                                             |
| <b>Wh and Q Displaced</b> |                       |                                                                                                            |
| kauru da                  | who                   | Oya [kauru aava kiyala da] kiuwe?<br>You who came COMP Q said-E<br>'Who did you say that came?'            |
| kiidenek da               | how many<br>(people)  | Kiidenek gahanna aava da?<br>How many hit(INF) came Q<br>'How many came to attack?'                        |
| kiiyak da                 | how many<br>(objects) | Oya poth kiiyak gatta da?<br>You books how many took Q<br>'How many books did you take/buy?'               |
| kochchara da              | how much              | Oya kochchara salli viyadam karaa da?<br>You how much money spend did Q<br>'How much money did you spend?' |

A Wh question word in Sinhala is formed by an indefinite question word and a question particle *-da* (Q). This question particle *-da* has the following properties and selectional restrictions.

a) *-da* requires *e*-ending of the matrix verb (*-e* suffix) in order to yield a question interpretation (1). In the absence of *e*-marking, the *-da* attached Wh phrase would convey an indefinite existential meaning (2).

(1) Kauda aave?  
Who come-**E**(PST)  
'Who came?'

(2) Kauda aava  
Somebody come(PST)  
'Somebody came.'

b) *-da* alone (without *e*-marking) yields interrogative interpretation only in yes/no questions (3).

(3) Nimal potha kiyewva da?  
Nimal book read(PST) Q  
'Did Nimal read the book?'

c) *-da* also functions as a disjunctive in a yes/no question (4).

(4) Oyaa-ta bath da paan da oona?  
You-DAT rice DISJ bread DISJ want  
'Do you want rice or bread?'



d) *-da* is obligatorily displaced from the Wh operator in embedded contexts, and in quantificational (D-linked) Wh phrases even in the root clauses<sup>1</sup>. When *-da* occurs in an embedded context, the *-e* suffix appears only in the matrix predicate, irrespective of the Wh being quantificational or not (5)-(6). Example (5) has a non-D-linked Wh in the embedded clause, and in (6), the Wh is D-linked.

(5) Oya [Nimal kohee giya kiyala da] kiuwe  
 You [Nimal where went COMP Q] said-E  
 'Where did you say that Nimal went?'

(6) Oya [Nimal kochchara salli viyadam kara kiyala da]  
 You [Nimal how much money spend did COMP Q]  
 hithanne?  
 think-E  
 'How much money do you think that Nimal spent?'

However, in quantificational Wh (D-linked) contexts, *-da* does not trigger *-e* suffix in the root clause (7).

(7) Oya kochchara salli viyadam karaa da?  
 You how much money spend did Q  
 'How much money did you spend?'

---

<sup>1</sup> I do not intend to discuss *-da* in embedded peripheries, in D-linked contexts, and in island violation instances as the focus of my discussion is the structural position of *-da* and Wh in the information structure. See Kariyakarawana (1998), Gair (1998), Hagstrom (1999), Kishimoto (2005) for a comprehensive discussion of Sinhala Wh (and focus).

Just like any other modal particle, *-da* also can mark different scope relations. Example (8) indicates narrow scope marking of *-da*, making the DP to its left salient. This triggers *-e* suffix too on the verb. Example (09) shows *da* scoping over a clause, and the *-e* suffix is absent.

- (8) Nimal da kaarekak gatte?  
 Nimal Q car(INDF) bought-E  
 'Is it Nimal who bought a car?'

- (9) Nimal kaarekak gatta da?  
 Nimal car(INDF) bought Q  
 'Did Nimal buy a car?'

The *-e* suffix of the verb indicates that *-da* shares the same verbal morphology with other modal particles in the case of narrow scope interpretation. However, its position with respect to the modals is quite high in the structure. Example (10) indicates narrow scope marking of the modals and Q, whereas in (11), the whole clause is scope marked.

- (10) Nimal **lu ne da** kaarekak gatte?  
 Nimal EVID EPIS Q car(INDF) bought-E  
 'Is it Nimal who bought a car, as people say?'

- (11) Nimal kaarekak gatta **lu ne da**?  
 Nimal car(INDF) bought EVID EPIS Q  
 'It is said, Nimal bought a car, isn't that so?'

Examples (10) and (11) indicate that *-da* (Q) occupies a higher position with respect to the modals. Also, the displaced *-da* (Q) (in embedded, D-linked, and

yes/no contexts) provides independent evidence for the existence of an interrogative position distinct from the landing site of a Wh-operator in Sinhala.

In Rizzi's (1999) left periphery analysis, he proposes a further refined articulation of the C-system with the inclusion of "*se*" (if) in Italian into the left periphery as a distinct functional head. Embedded yes/no questions are introduced by "*se*", and it occupies a distinct position lower than that of "*che*", but necessarily higher than focus, and can be preceded and followed by a topic. This distinct position of "*se*" is identified as INT(errogative), and is represented in the following way in the C-system

(12) FORCE (\*TOP) INT (\*TOP) FOCUS (\*TOP) FIN IP

Following Rizzi, I identify *-da* (Q) of Sinhala, (when *-da* is displaced from the Wh) as the distinct head INT. As Wh questions are inherently focused, I assume that INT has an interpretable [Focus] feature, a claim confirmed by the fact that *da* (INT) and *thamai* (focus marker) cannot co-occur in the same clause, as shown in (13)—with sentential scope—and (14)—with constituent scope.

(13) \*Nimal kaarekak gatta **tamai da**?

Nimal car(INDF) bought FOC INT

'Did Nimal buy a car indeed?'

(14) \*Nimal **tamai da** kaarekak gatte?

Nimal FOC INT car(INDF) bought-E

'Is it Nimal who bought a car?'

Also, in our analysis of INT, we should take note of the absence of a complementary distribution of it with the modals. Hence, I propose that INT is located in the TP domain, but, above the modal heads as in (15):-

(15) [TP INT MD:EVID MD:EVAL MD:EPIS vP]

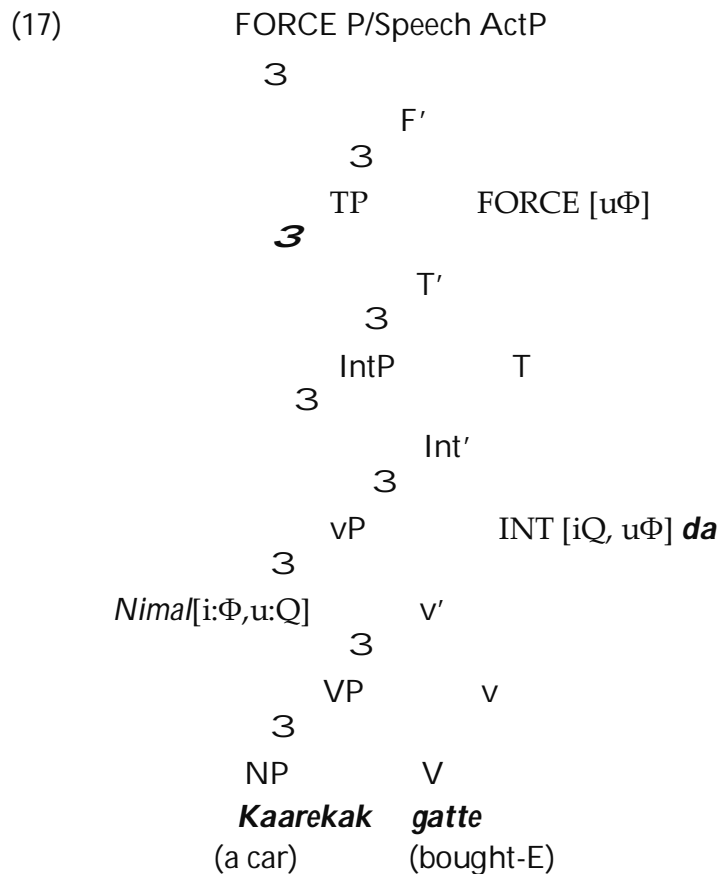
As for how these features get checked in narrow syntax, let us see the case of narrow scope marking of *-da* first as in (16).

(16) Nimal da kaarekak gatte?  
 Nimal INT car(INDF) bought-E  
 'Is it Nimal who bought a car?'

We noticed in Chapter 3, that when a mood/modal particle has narrow scope, the particular modal head values the uninterpretable modal-based features/P-features of C in a simultaneous feature-transfer-valuation operation. The behavior of INT head *-da*, which can mark both narrow and wide scope, is not different from that of the mood/modality markers we have discussed so far, except for its relative height. Therefore, it is plausible that *-da* also enters the derivation through selection from the lexicon, where it has a full specification for phonological and semantic features.

Furthermore, since the conclusion that it modulates the properties of C/FORCE, just as the modals do, I propose that INT receives the unvalued phi-features of C. The *-e* suffix is a reflex of this feature transfer/inheritance. Consequently, INT establishes an Agree relation with a matching goal. I also propose that the particular DP enters the derivation with an unvalued Q feature (similar to an unvalued case feature) which gets [+Q] in the Agree relation. However, there is no raising to [Spec, INT] as the Edge feature of C is not transferred in this case

(17). In contrast, the absence of the -e suffix, as in clausal level scope, indicates that no such Agree-based feature transfer to INT takes place.



We have already noticed that INT occurs higher than all the other modals in the clause. Hence, its relative position in the root clause should be as follows.

(18) MD Speech Act/FORCE > T > INT > vP

INT behaves differently in embedded contexts with respect to the other modal particles we have discussed so far. That is, INT can mark both narrow scope (19), and wide scope (20), in the embedded contexts. This can be attributed to its higher position in the clause structure with respect to the modals.

(19) Ajith aehuwa [Nimal da kaarekak gatte kiyala]

Ajith asked [Nimal INT car(INDF) bought-E COMP]

‘Ajith asked whether it is Nimal who bought a car?’

(20) Ajith aehuwa [Nimal kaarekak gatta da kiyala]

Ajith asked [Nimal car(INDF) bought INT COMP]

‘Ajith asked whether Nimal bought a car?’

It might appear at first glance that (19) does not contain an embedded yes/no question. However, a proper answer to (19) will be “yes it is Nimal/no it is Sunil” etc. thereby confirming the narrow scope Wh status of the embedded question. On the other hand, the wide scope (20) would derive the answer “yes Nimal bought a car/No, Nimal did not buy a car” confirming the clausal level Wh status of the embedded question.

With the above observation, the head positions for the embedded clause are,

(21) FORCE > T > INT > vP

#### **4.1.2 Wh-Operators and INT**

Recall that a Wh question operator in Sinhala is formed by an indefinite question word and a question particle *-da(Q)*, which functions as a single unit. Further, the *-e* suffix appears on the verb, marking the interrogative mood (without which the Wh has simply an existential reading).

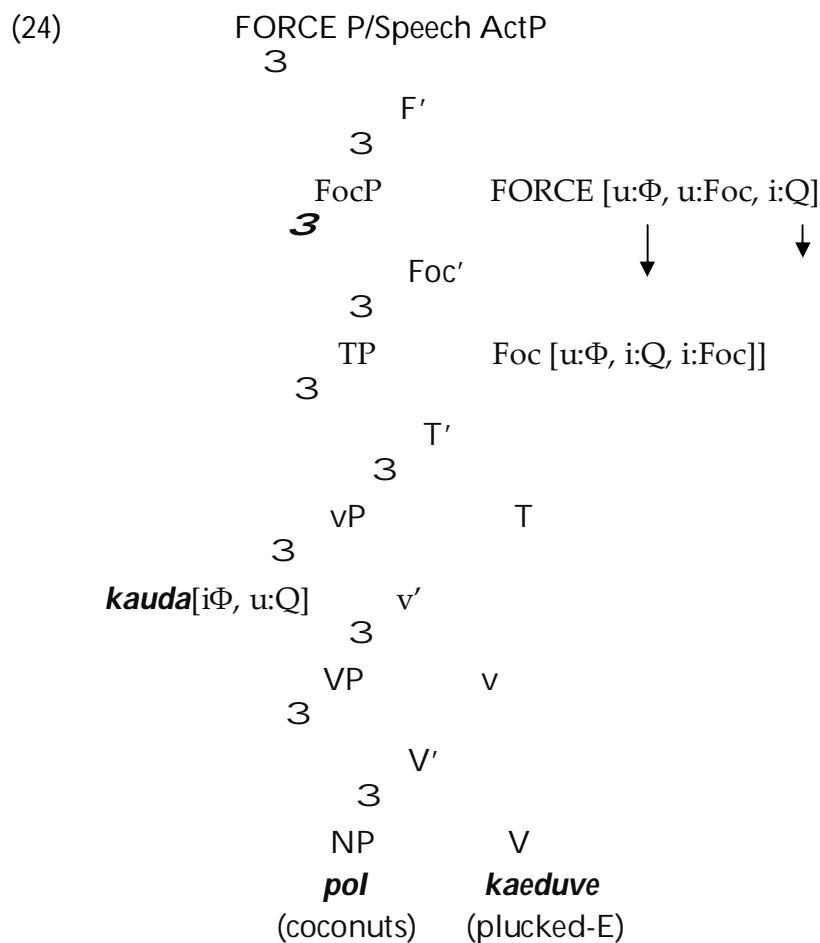
Chomsky (1995, 1998, 1999) suggests that when C gets an EPP feature, it also gets a P feature automatically. What he implies by P feature is obviously a topic/focus feature. I propose that C has a [u:FOC] feature which gets valued in a simultaneous feature-transfer operation with a focus head dominated by C.

Further, C also transfers its uninterpretable Agree-based features, and the interpretable [Q] feature to this focus head. This position is quite compatible with Rizzi too as he too argues that Wh movement (in English) targets the specifier of a focus phrase in the C domain. Further, in the case of Sinhala, both Wh and focus cannot co-occur, thus confirming our assumption (22)-(23).

(22) \*Kauda tamai pol kaeduwe?  
 Who FOC coconuts plucked-E  
 'Who is it that plucked coconuts?'

(23) \*Kauda pol tamai kaeduwe?  
 Who coconuts FOC plucked-E  
 'Who plucked coconuts?' (coconuts focused)

Since the Wh operator '*kauda*' (who) has an interpretable  $\Phi$ -set, it is a matching goal for the FOC head which has a  $[u\Phi]$ . In the Agree relation that ensues, the Wh gets its Q feature valued as  $[+Q]$ . Since the Edge feature is not transferred, there is no raising. The *-e* suffix is a reflex of this Agree relation which indicates that C/FORCE has transferred its  $[uFs]$  down, and in this case, to the focus head that modulates the properties of C/FORCE. Example (24) illustrates this.



However, Sinhala cannot treat both subject and object Wh phrases equally as they show an obvious asymmetry. That is, whereas the subject Wh phrases establish an Agree relation with a higher focus head, the object Wh phrases do not. A clear indication of this is that a subject Wh phrase immediately to the left of V is either not grammatical (26) or marginal in most cases. In the case of an object Wh phrase, though both a fronted and an in-situ Wh are grammatical, native speakers prefer the in-situ Wh that is contiguous with the verb (27).

- (25) Kauda pol kaeduwe?  
Who coconuts plucked-E  
'Who plucked coconuts?'



- (26) \*pol        kauda   kaeduwe?  
           coconuts who     plucked-E  
           ‘Who plucked coconuts?’
- (27) Oyaa   monavada   gatte? (natural and most preferred)  
           You    what        bought-E  
           ‘What did you buy?’
- (28) Monavada   oyaa    gatte? (ok but not common)  
           What        You    bought-E  
           ‘What did you buy?’

Sinhala exhibits superiority effects, further confirming this asymmetry (29)-(30).

- (29) Kauda   monavada   gatte?  
           Who    what        bought-E  
           ‘Who bought what?’
- (30) \*monavada   kauda   gatte?  
           what        who    bought-E  
           ‘Who bought what?’

I assume that (27) is the unmarked order for an object Wh question. We have already noted that Wh is inherently focused and a Wh and a focus simultaneously in the same clause are disallowed. Therefore, our analysis of the object Wh too should capture this observation. Therefore, I project a lower focus position (immediately above vP) for the object Wh. This is in line with Jayaseelan(2004, 2008), who proposes the same for Malayalam. Belletti (2002) proposes a vP peripheral focus functional projection for new informational focus

in Italian. Aboh (2007) argues for a vP peripheral focus position for Bantu. I present Jayaseelan's proposal briefly in the following section.

Jayaseelan (2004, 2008) observes that in some SOV languages, a Wh phrase must end up immediately to the left of V. Using Malayalam data, he argues that this Wh phrase moves to the specifier of a focus projection immediately above vP. He motivates this movement by the need of a question operator to access the Wh phrase in a theory that incorporates Phase Impenetrability Condition (Chomsky: - 1998, 1999, 2001). He shows that in the following sentence pair, the (b) sentence is unacceptable (Jayaseelan 2004: 7).

(31) a. nin-ne aara talli?<sup>2</sup>

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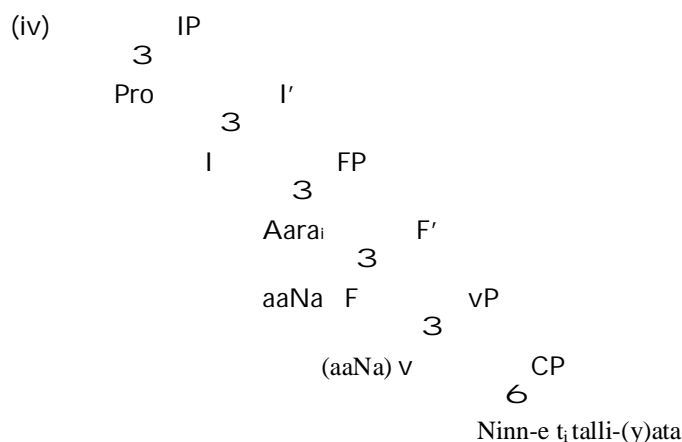
<sup>2</sup> Malayalam also has a clefted, constituent Wh question (Jayaseelan 2004, Jayaseelan & Amritavalli 2005) placing the Wh phrase in the cleft focus. Thus (31, a) will be expressed as (i).

- (i) **Aara** aaNa [nin ne talli-(y)ata]?  
 Who copula [you-ACC beat (Past)- Nominalizer]  
 'Who was it that beat you?'

Further, the focus plus copula can "float" in to the cleft clause, as shown in (ii)-(iii), which indicates that the adjacency requirement with the verb exhibited in the non-clefted (31, a-b) is not obligatory for the clefted Wh counterpart.

- (ii) nin ne **aara** aaNa [talli-(y)ata]?  
 you-ACC who copula [beat (Past)- Nominalizer]  
 'Who was it that beat you?'
- (iii) [nin ne talli-(y)ata] **aara** aaNa?  
 you-ACC beat (Past)- Nominalizer who copula  
 'Who was it that beat you?'

The cleft focus analysis that Jayaseelan proposes is one that the copula taking a CP complement, the focused constituent moves to [Spec, Foc] of an IP internal focus projection above vP, copula moves to the focus head, pro occupies the matrix [Spec, IP]. By analogy, a clefted Wh should appear as in (iv)(the structure is mine).



By analogy to (iv), it is plausible that the Sinhala Wh question in (v), which may convey both a non-contrastive and contrastive interpretation, and also has a number of scrambling possibilities (vi), (vii), may also warrant a cleft analysis.

- (v)    **kauda**    oyaa-ta    gaehuwe ?  
          who    you-DAT    hit-e(past)  
          Who hit you?  
          ‘Who is that hit you?’
- (vi)    Oyaa-ta    **kauda**    gaehuwe ?  
          You-DAT    who    hit-e(past)  
          Who hit you?  
          ‘Who is it that hit you?’
- (vii)    Oyaa-ta    gaehuwe    **kauda?**  
          You-DAT    hit-e(past)    who  
          Who hit you?  
          ‘Who is it that hit you?’

However, a number of structural and distributional differences exist between the Malayalam clefted Wh and the Sinhala Wh that do not warrant a cleft analysis for the Sinhala Wh.

Note that Malayalam has two distinct Wh types: a non-cleft that observes strict adjacency between the Wh phrase and the verb, and a clefted Wh that allows scrambling. In contrast, Sinhala has only one Wh type, structurally identical to the non-clefted Wh of Malayalam, nevertheless, allowing scrambling as in the Malayalam clefted Wh.

In the Malayalam clefted Wh, what is predicated of the copula is a CP, with the nominalizer filling in as the complementizer. In contrast, Sinhala does not employ both a copula and a nominalizer/complementizer in a matrix Wh question so that Sinhala cannot have a bi-clausal Wh (except in embedded contexts).

Mohanan (1982) analyzes the copula as a focus marker in the cleft constructions, and offers a mono-clausal analysis for the cleft. Extending the same analysis to a Sinhala Wh, replacing the Malayalam copula with the focus marker “tamai” leads to ungrammaticality as in (viii), as a Wh and the focus marker “tamai” are not allowed in the same clause.

you-ACC who beat (Past)

‘Who beat you?’

b. \*aara nin-ne talli?

‘who you-ACC beat (Past) ‘

Jayaseelan argues that in the above (a) sentence, the subject Wh is in a contiguous position with V, and, in order to accommodate this, the subject must be lowered into the contiguous position with V. In order to overcome this problem, he proposes that the subject moves to a [Spec, focus] position immediately above vP. At the same time the verb internal arguments move out of the VP, across this [focusP] into the specifiers of higher functional projections. He assumes a universal [spec-head-comp] order so that the VP vacating movements bring the focused Wh subject DP closer to V.

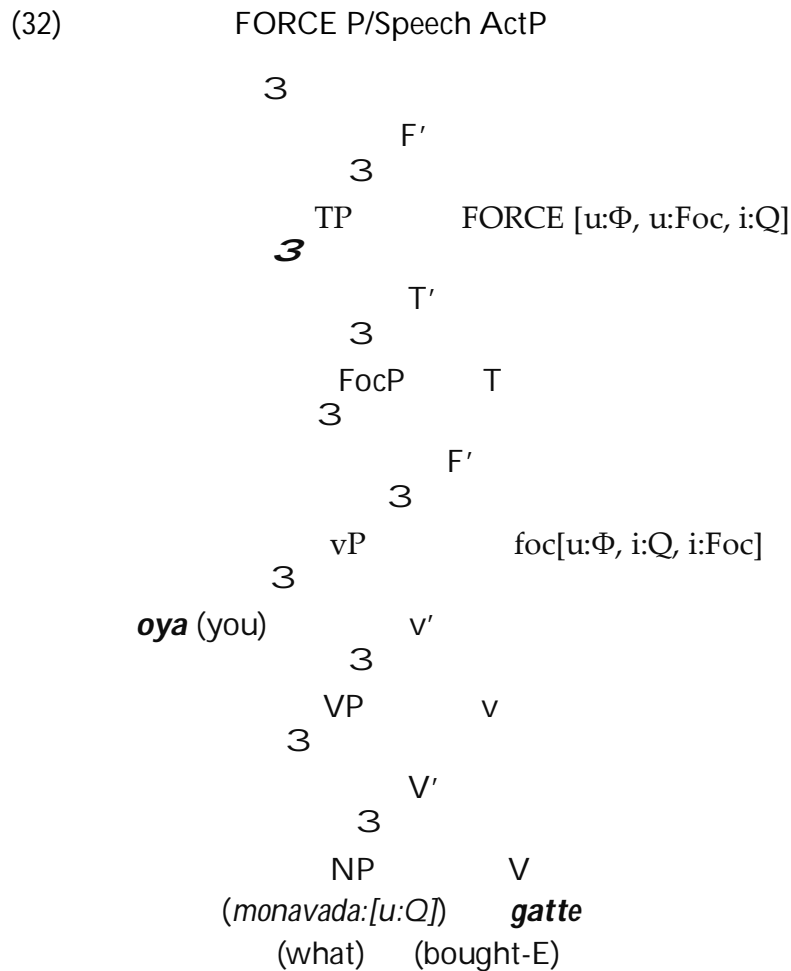
What we observed in the Sinhala subject Wh cases is exactly the opposite of Malayalam observation. That is, whereas a subject Wh contiguous with V is not fine (or marginal) in Sinhala, it is grammatical in Malayalam. Hence, the low focus position for the subject Wh does not appear to be obligatory: rather, we need it for the object Wh questions as the unmarked order is ‘S obWh V’. However, in Sinhala there seems to be an option; the object Wh can establish an Agree relation with the sentence peripheral focus position too, as in (28), and in this case the transfer/inheritance is between C and this higher focus head.

- 
- (viii) \*Kauda tamai oya-ta gaehuwe  
Who FOC you-DAT hit-E  
‘Who is it that hit you?’

Even a contrastive yes/no Wh question in Sinhala (ix) is mono-clausal thus disallowing a cleft analysis. (In contrast, I have motivated a cartographic analysis with Q (-da) occupying a distinct head –INT).

- (ix) Nimal-da oyaa-ta gaehuwe  
Nimal-INT you-DAT hit-E  
‘Is it Nimal who hit you?’

In the default case, the transfer/inheritance is between C and the vP peripheral focus head and the *-e* suffix is a reflex of this Agree-based feature transfer. The object *Wh* agrees with the verb-peripheral focus Probe, which modulates the properties of C and gets its unvalued *[Q]* feature valued as *[+Q]*. Structure (32) illustrates this.



## **4.2 Focus Encoding in Sinhala**

### ***4.2.1 An Overview***

The phenomenon of focus in natural languages has been a subject of intense cross-linguistic investigation over the years. This is mostly notable within the principles and parameters framework, resulting in a large body of empirical and theoretical contributions covering a wide variety of languages. In keeping with the developments in generative syntax, focus phenomena have been investigated in relation to the most recent developments such as the split TP and CP and the left periphery of the clause. This has opened up further possibilities of looking at the focus phenomena afresh. Consequently, the surface typological diversity of focus encoding of many languages has been characterized in relation to the interplay between pragmatic function, grammatical marking, and semantic interpretation. This has generated a number of theoretical questions such as: What is the relation between focus and topic, and of different types of focus? What is the connection between focus and case marking and the semantic properties of a DP? How does focus contribute to discourse configurability? What is the nature of the link between focus and Wh? At what level does focus need to be interpreted? Is it a VP-related phenomenon or is it a syntactic head with a fixed structural position?

As reflected in these conjectures, it is evident that focus interacts with different levels of linguistic analysis such as, prosodic, lexical, morphological, syntactic, and semantic/pragmatic. Nevertheless, there is no consensus as to where the information structure belongs, with some linguists assigning it to pragmatics while others to syntax. The recent cross-linguistic studies on information structure, however, have presented a challenge to the minimalist assumptions of

Inclusiveness Condition where topic/focus information are not part of the Numeration and hence not computed in syntax. Kidwai (1999) has discussed focus in terms of a [+FOCUS] feature in UG that needs licensing within the PF component, and this licensing is driven by discourse-related, rather than LF related considerations (Kidwai 1999). Aboh, (2006) argues that information structure starts in the Numeration in the form of discourse related lexical items which drive the derivation. He argues that discourse related particles encode features such as topic, focus, and interrogative force that are projected in syntax. Hence, core syntax must involve information related TOP, FOC functional projections just as the functional projections related to formal features of tense, agreement etc. This is the position assumed by Rizzi (1997, 99) too, in his split CP proposal.

As we discussed in Chapter 1, in Rizzi (1997, 1999), Force and Finiteness are essential heads in the C-system and are present in all clause structures, whereas topic-focus are necessary in the structure only when they are activated. Notably, the optionality of topic is evident as it occupies a position both to the left and right after each head (below Force) in the left periphery. This bears some structural similarity to Cinque's (1999) adverb positions to the left and right of each functional head. However, in Cinque's proposals, adverbs occupy specifier positions, whereas topic and focus are heads in Rizzi's. Cinque does not project positions for topic/focus in his hierarchy as his structural layer is between TP and vP, whereas topic/focus has structural positions in the C-system. He holds the view that since the heads in the left periphery, such as topic, focus and Wh are interpretable, and also are operators that mark scope, they simply cannot be limited to the role of feature checking and disappearing. Hence, Rizzi's cartographic approach assumes that the focalized elements and topicalized

elements are located in the dedicated specifier positions of the relevant functional heads in the left periphery, rather than having adjunction structures. Therefore, movement to the left periphery is to satisfy a feature requirement of a functional head which needs a topicalized or a focalized element in its specifier.

#### **4.2.2 Focus in Sinhala**

Information structure encoding in Sinhala presents a challenge to the minimalist assumptions where topic/focus related information are considered pragmatic property and hence are not well motivated in the narrow syntax. In Sinhala, the picture is different as topic/focus encoding takes place morphologically through particles (in addition to syntactic and prosodic). Essentially, then these lexical items/particles should be in the lexicon before they become a Numeration, must have semantic features, and get computed in syntax. Hence, in a way, information structure of the clause is pre-determined. This indicates that, what drives the derivation cannot be the formal features alone, but the feature composition of the discourse particles too. This is supported by syntactic evidence pertaining to scope relations, Wh, verbal morphology etc. Therefore, the morphological encoding of focus in Sinhala offers further empirical justification for a cartographic approach. Further, in our discussion of information structure, I will show that Sinhala topic/focus has a number of properties that it shares with the top/focus of other languages, while certain other properties are unique. I start with focus.

Focus encoding in Sinhala takes place in three modes; morphologically, syntactically, and prosodically. Morphological focus is realized through the focus marker *thamai*. Similarly, negation of a focused constituent is achieved through the negator *nemei*. The focus marker *thamai* and focused NEG *nemei* are in



complementary distribution. Hence the following discussion is limited to the focus marker *thamai*.

Examples (33)-(35) illustrate the morphologically, phrase structurally, and prosodically marked contrastive focus respectively. Examples (33)-(34) are answers to the question “Who plucked coconuts?<sup>3</sup>” while (35) answers the question “What did NIMAL do?”

The focus marker ***thamai*** in (33) carries morphological focus and the constituent that immediately precedes it, the subject, *Nimal* is in focus. Consequently, the verb changes its final “a” to “e” (which was referred to as *e*-suffix and a reflex of Agree-based feature transfer in Chapter 3).

- (33) Nimal **tamai** pol kaeduwe  
 Nimal **FOC** coconuts plucked-E  
 ‘It is Nimal who plucked coconuts’

In (34), *Nimal* in the immediate post-verbal position of the *e*- suffixed verb is in focus, and this is a derived subject. But crucially, both *Nimal* and the focus marker have moved as a unit, although there is a PF option in the derived focus position. That is, in the absence of *thamai* (the focus marker), the argument in the post-verbal position carries focus syntactically.

- (34) pol kaeduwe Nimal (tamai)  
 Coconuts plucked-E Nimal (FOC)  
 ‘It is Nimal who plucked coconuts’

---

<sup>3</sup> Though examples (33)-(34) give focused answers, this does not mean that an answer to ‘who plucked coconuts?’ is obligatorily focused. It can have the non-focused answer in most contexts.

Example (35) illustrates the prosodically marked focus with the nuclear stress on Nimal.

- (35) NIMAL pol kaeduwa  
Nimal coconuts plucked  
'NIMAL plucked coconuts'

In the following sections, I will examine the morphological focus (tamai) with respect to its structural position among the other functional heads, its unique properties, and its distribution in root and embedded peripheries.

Focus encoding with a focus marker is not an unusual phenomenon in languages as quite a number of languages attest it. Aboh (2010) presents evidence from Kwa and Bantu languages, notably from Gungbe and Zulu for such focus encoding through focus markers (wɛ), (ya) . Aboh argues for the left peripheral focus encoding by a focus phrase as the focused element obligatorily moves to a left peripheral focus projection in those languages.

#### ***4.2.3 Previous Literature***

##### ***4.2.3.1 Gair***

In his discussion, Gair (1983, 1998) includes the following particles with their respective meanings as focus marking forms.

**Table 02: Focus Particles (Gair 1998, 53)**

|                 |                        |
|-----------------|------------------------|
| - <i>da</i>     | question               |
| - <i>yi</i>     | emphasis or limitation |
| - <i>thamai</i> | certainly, forsooth    |
| - <i>lu</i>     | reportative            |
| - <i>nan</i>    | if                     |
| - <i>ne/nee</i> | dubitative             |

Gair's discussion includes both in-situ and ex-situ focus where the in-situ focus is achieved through a focus particle (36), and ex-situ focus, through rightward movement (37). He identifies the *-e* suffix as the focusing suffix in both cases as against the neutral sentence in (38) (Gair 1983: 52, 54).

- (36) Lanka-ve      aya      bathu-**y**      kanne  
Sri Lanka-Loc   people   rice-emph   eat-E(non past)  
'It is rice that Sri Lankans eat'

- (37) Lanka-ve      aya      kanne      bath  
Sri Lanka-Loc   people   eat-E(non-past)   rice  
'It is rice that Sri Lankans eat'

- (38) Lanka-ve      aya      bath      kanava  
Sri Lanka-Loc   people   rice   eat (non-past)  
'Sri Lankans eat rice'

Gair also observes that focusing in Sinhala is not clause bound so that the complementizers do not induce opacity to focusing from a lower sentence to a higher one. Example (39) shows focusing into a lower clause (Gair: 56; 28-a).

- (39) Siripala eeka Gunapala-ta-Y dunna kiyala man kiwwe  
 S(NOM) that G-DAT-EMPH gave COMP I said-E  
 'It was to Gunapala that I said that Siripala gave that'

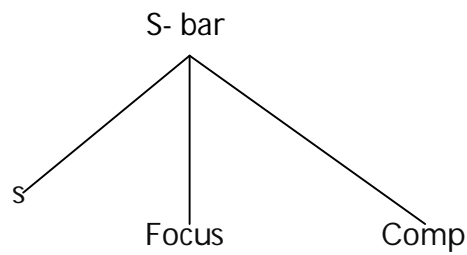
Gair claims that focusing is subject to subjacency in the form of complex noun phrase constraint (CNPC) with regard to relative clauses (40)-(41) (Gair: 58: 42-b, 41-b).

- (40) \*\*ee pota tamai kiewwa lameya-wa guruvaraya prasansakeruwe  
 that book EMPH read-PST child-ACC teacher praise-PST-E  
 'It was that book that the teacher praised the child who read'

- (41) \*\*mokak da horakamkarapu minihek-va hoyanne?  
 what Q steal(PTCP) man-INDF-ACC seek-E (nonpast)  
 'what are you looking for a man who stole?'

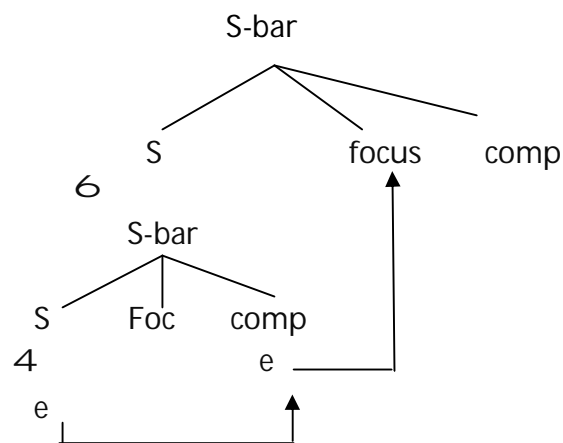
Gair's explanation of the above is based on the assumption that Sinhala is a non-configurational language, and specifically, the proposals in Chomsky (1982). In order to account for non-configurational languages, Chomsky (1982) proposes, that both D-structure and S-structure can each be considered a pair ( $\alpha$ ,  $\beta$ ) such that  $\alpha$  is a formal syntactic structure, and  $\beta$  is a representation of associated GF's (Grammatical Functions). Accordingly, Gair considers that for each  $\alpha$  structure, there is a  $\beta$  representation at both D and S structure. This  $\beta$  structure provides the necessary configuration so that focusing can be treated as an instance of D to S movement within  $\beta$  structure. In other words, the movement is from  $\beta$  D structure to  $\beta$  S structure. The focus node occurs directly under S-bar as in (42) (Gair: 61, 50).

(42)



Focus particles such as *da*, *Yi*, *thamai* are base generated under focus. Focus within a single S-bar proceeds by movement of the focused element to the focus position in  $\beta$  structure (43) (Gair: 62: 51).

(43)



Unbounded focusing proceeds by COMP to COMP movement, with the focused element ending up in focus of the higher S. Focus extraction from relative clauses is blocked by subadjacency, since movement to any focus position passes at least two bounding nodes, NP and S-bar.

#### 4.2.3.2 Kariyakarawana

Kariyakarawana (1998) investigates the focus phenomena of Sinhala in the theoretical framework of government and binding (Chomsky 1981, 1982, and 1986 a, b), and attempts to present a comprehensive analysis of the focus

construction. His critical examination of focus includes the cleft construction, Wh movement, focus particles, focus and pre-supposition, and the verb marking.

He identifies the following three types of focus encoding.

- a) C-focus (cleft focus). A constituent of a sentence may be focused by clefting

it (44).

(44) Lanka-we            aya        kanne            bath  
Sri Lanka-Loc    people   eat-E(non-past)   rice  
'It is rice that Sri Lankans eat'

- b) E-focus (emphasis focus).

A constituent of a sentence may be focused, in its regular SOV order by the placement of a morphological focus marker immediately following it (45).

(45) Lanka-we            aya        bathu-y        kanne  
Sri Lanka-Loc    people   rice-Yi        eat-E(non-past)  
'It is rice that Sri Lankans eat'

- c) P-focus (phonological focus).

A constituent may be focused by placing the nuclear stress on it (46) (Kariyakarawana: 81:3-b, 1-b, 2-c).

(46) Lanka-we            aya        BATH        kanava  
Sri Lanka-Loc    people   rice        eat (non past)  
'Sri Lankans eat RICE'

According to Kariyakarawana, the main difference between C-focus and E-focus is that the former has only a cleft reading, while the latter has both cleft and non-cleft, i.e., regular Wh question reading.

Kariyakarawana lists the following particles as focus markers that make any constituent immediately preceding one of them morphologically focused, and observes that they attribute a contrastive meaning to the whole proposition (47), or a constituent (48), that comes under the scope of such a particle. He observes that an important difference between the two types is that in constituent focus, the suffix *-e* appears on the verb, whereas it is absent in the case of sentential focus. Further, he maintains that only the Q (*da*) is obligatory in the post-verbal position whereas all the other particles are optional.

#### **Focus Particles;**

*lu* (reportative), *yae* (dubitative), *da* (interrogative), *tamai/y* (certainty), *ne*(Tag)

#### **Sentential/propositional Focus**

- (47) Gunapala    heta            gaalu            yanava *lu/yae/nang/ da/ne/tamai*  
 Gunapala    tomorrow Galle-Loc go            REP/DUB/IF/Q/TAG/FOC  
 'Gunapala is going to Galle tomorrow/as people say/Is he/If he is../Does he/Isn't he/Indeed'

#### **Constituent Focus**

- (48) Gunapala    *lu/yae/nang/ da/ne/tamai*    heta            gaalu            yannE  
 Gunapala    REP/DUB/IF/ Q/ TAG/FOC    tomorrow Galle-Loc go-E  
 'Gunapala /as people say/is it/if/does/Isn't/indeed/ is going to Galle Tomorrow.'

Kariyakarawana proposes a bi-clausal structure for cleft (C- focus) similar to the structure of English cleft. The post-verbal position is identified as a structural position for cleft, where the focus element is base-generated and the movement of an abstract operator at S-structure is posited. The structural representation of a (C) focused sentence such as (49, a), is given in (49, b) (Kariyakarawana 1998: 96)

- (49) a. Lankaave            aya            kanne            bat (uy)  
           Sri Lanka-GEN people    eat-PRES-E rice  
           'It's rice that Sri Lankans eat.'
- b. [CP Op i [IP t<sub>i</sub> presupposition t<sub>i</sub>] [XP<sub>i</sub> focus ]]

We will come back to a discussion of Gair and Kariyakarawana in 4.2.5.

#### **4.2.4 Properties of Morphological Focus in Sinhala**

The syntactic properties of focus are not much different from those of epistemic modals that we discussed in the preceding chapter. One such property is scope marking, where, a pre-verbal constituent or a whole clause can be marked for focus. In the case of narrow scope marking of the focus particle, the *-e* suffix appears on the verb (50), whereas in wide scope marking, *-e* suffix does not appear on the verb (51).

- (50) Nimal **tamai**    pol            kaeduwe  
       Nimal    FOC       coconuts plucked-E  
       'It is Nimal who plucked coconuts'
- (51) Nimal    pol            kaeduwa **tamai**  
       Nimal    coconuts plucked    Foc  
       'Nimal plucked coconuts, indeed'



Further, a pre-verbal constituent of any lexical category, (NP, Adv, PP, except adjectival), argument or adjunct, can be marked with *thamai* for focus. Example (52) indicates this for the adverb.

- (52) Nimal    **haiyen tamai**    diuwe  
       Nimal    **fast**        **FOC**        ran-E  
       ‘It is fast that Nimal ran’

In our discussion of epistemic modals we noted that narrow scope marking applied only to XPs and not to heads, and the relation was head-XP rather than head-head. This seems to hold with respect to focus too. For example, in scope marking a preposition, the focus particle attaches to the whole PP (53), rather than to P, because scrambling of [P + Focus] makes the sentence ungrammatical (54). This shows that the focus feature can effect pied-piping, just as the Wh-feature does.

- (53) Potha    [meese        uda tamai]    thiyenne  
       Book    [table(LOC) on    FOC]        has-E  
       ‘The book is on the table’ (not under the table)
- (54) \*[uda tamai] meese        potha thiyenne  
       [On FOC]        table(LOC) book    has-E  
       ‘The book is on the table’ (not under the table)

In the same way, an adjective alone cannot be marked for focus (55)-(56).

- (55) \*Nimal [loku tamai] pol        kaeduwe  
       Nimal [big FOC]    coconuts plucked-E  
       ‘Nimal plucked big (focused) coconuts’

- (56) Nimal [loku pol tamai] kaeduwe  
 Nimal [big coconuts FOC] plucked-E  
 'It is big coconuts that Nimal plucked'

There are, however, two sets of exceptions to the generalization that any XP may be focalized. The first set consists of bare quantificational elements like *hema-deyakma* (everything), *kisima-kenek* (no one), and *haema-kenekma* (every one) that cannot be focalized as shown in (57)-(59)<sup>4</sup>.

- (57) \*Mama haema deyakma tamai soyala baeluwe  
 I every thing FOC looked after-E  
 'I looked after everything' (everything focused)

- (58) \*Kisima kenek tamai aave naeththe  
 No one FOC came-E Neg-E  
 'No one (focused) came'

- (59) \*Haema kenekma tamai aave  
 Every one FOC came-E  
 'Every one (focused) came'<sup>5</sup>.

---

<sup>4</sup> In contrast, as shown by Rizzi (1997), all the bare quantificational elements in Italian can be focalized, but not topicalized in a clitic left dislocated (CLLD) construction. Rizzi uses it as a diagnostic to indicate that focus is quantificational while topic is not. But this differential behavior of Sinhala focus (and topic) can be understood as, in Sinhala, both focalization and topicalization are morphological, whereas in Italian, they are prosodic and syntactic respectively. Further, as we will see later, topicalization of an element in an LD construction is not fine in Sinhala too, just as it is in Italian.

<sup>5</sup> The only exception to this ban on the quantification is the universal quantifier *okkoma* (all) that can be focalized as in (i). I will put this matter aside for now, just noting that this exceptional behavior of 'all' may follow from an analysis that is not a determiner-quantifier at all (Brisson 1998).

This ban on the focalization of operators extends to Wh-expressions, which also cannot be marked for focus (60).

- (60) \*Kauda tamai pol kaeduwe?  
 Who FOC coconuts plucked-E  
 'It is who who plucked coconuts?'

Also, a Wh and a focused constituent are not compatible in the same clause showing that there is only one landing site for both in the root clause, as in (61). This holds in the embedded contexts too, as a Wh and a focused constituent are not compatible simultaneously in the embedded clause either, as in (62).

- (61) \*Kauda pol tamai kaeduwe?  
 Who coconuts FOC plucked-E  
 'Who plucked coconuts' (coconuts focused)

- (62) \*Sunil [Kauda pol tamai kaeduwe kiyala] aehuwa?  
 Sunil [Who coconuts FOC plucked-E COMP] asked?  
 'Sunil asked who plucked coconuts' (coconuts focused)

However, a Wh in the matrix and a focused constituent in the embedded are fine, indicating that focus in Sinhala need not take matrix scope at LF (63).

- (63) Kauda kiuwe [Nimal tamai pol kaeduwe kiyala]?  
 Who said-E [Nimal FOC coconuts plucked-E COMP]  
 'Who said that it was Nimal who plucked coconuts?'

---

(i) Mama okkoma tamai illuwe  
 I all foc asked-E  
 'It is everything/all (that) I requested'

Another property of Sinhala focus is that a moved focused constituent is ambiguous with respect to weak crossover effects (64). In (64), *eyaage* (his) may refer to ‘professor’ or it may refer to somebody else. This differs from Italian where a WCO violation occurs in a similar case, as indicated by Rizzi (65) (Rizzi 1997, 10).

(64) Mee Professor-va<sub>i</sub> tamai eyaage<sub>i</sub> goolayo t<sub>i</sub> varnana-karanne  
 This Professor<sub>i</sub>-ACC FOC his students t<sub>i</sub> appreciate-do-E  
 ‘It is this Professor his students appreciate’

(65) ??GIANNI<sub>i</sub> sua<sub>i</sub> madre ha sempre apprezzato t<sub>i</sub> (non Piero)  
 “GIANNI his mother always appreciated, not Piero”

The WCO toleration in (64) confirms that focus in Sinhala is not a property of the matrix clause alone so that it does not need to undergo QR to a matrix operator position at LF. However, this does not extend to crossover phenomena in Sinhala in general, as (66) indicates.

(66) \*Kaa-ta<sub>i</sub> da eyaage<sub>i</sub> goolayo t<sub>i</sub> kaemathi?  
 Who-DAT<sub>i</sub> Q his students t<sub>i</sub> like  
 ‘Who does his students like?’

Example (66) is a clear violation of WCO. According to Lasnik and Stowell (1991), WCO is a distinctive characteristic of A-bar relations involving genuine quantification. A-bar dependencies are divided between those that are purely quantificational and bind a variable and those that are non-quantificational and bind a null epithet or null constant. Example (66) is a case of quantificational variable binding dependency. Extending the same analysis to focus, Rizzi claims that focus is quantificational, as, in Italian, a focused constituent induces a WCO

violation. In contrast, topic is non-quantificational as it does not induce a WCO violation.

A reasonable explanation for this asymmetry in WCO in focus/topic and Wh could be the specificity feature of the focus/topic, whereas the absence of it in the Wh element. A contrastive yes/no Wh question (67) too confirms this assumption (though this needs further elaboration).

- (67) Mee professor<sub>i</sub> **da** eyaage<sub>i</sub> goolayo t<sub>i</sub> varnana karanne?  
 This professor **INT** his students t<sub>i</sub> appreciate do-E  
 ‘Is it this Professor that his students appreciate?’

As in the case with focus/topic, the above contrastive yes/no Wh question too is ambiguous between a WCO violation and not. (This also indicates that the INT particle (*da*), when used for narrow scope, has a contrastive focus function and should be treated accordingly in syntax).

Another property of Sinhala focus is that only one constituent can be focused in a clause, either in the matrix or the embedded (68)-(69) at a time. Although Rizzi (1997) proposes a recursive topic projection for Italian, he proposes one structural position for focus, as recursion of FocusP is banned by the interpretive clash that arises. Sinhala too, instantiates the same phenomenon.

- (68) \*Nimal **tamai** pol **tamai** kaeduwe?  
 Nimal **FOC** coconuts **FOC** plucked-E  
 ‘It is Nimal who plucked it is coconuts’

- (69) \*Ajiith [Nimal **tamai** pol **tamai** kaeduwe kiyala]  
 Ajith [Nimal FOC coconuts FOC plucked-E COMP]  
 dannava/danne  
 know/know-E  
 'Ajith knows that it is Nimal, it is coconuts that he plucked'

Similarly, only one focused constituent can occur in either clause, simultaneously. This shows that only one focus position can be activated at a time (70).

- (70) \*Ajith tamai [Nimal tamai pol kaeduwe kiyala]  
 Ajith FOC [Nimal FOC coconuts plucked-E COMP]  
 dannava/danne  
 know/know-E  
 'It is Ajith who knows that it is Nimal who plucked coconuts'

#### **4.2.5 An Analysis**

Both Gair (1983, 1998) and Kariyakarawana (1998) offer a movement analysis to focus in their respective discussions. Gair's analysis is similar to the overt Wh movement in English with the difference in Sinhala focus is that the focused element moves rightward. Kariyakarawana's C- focus which assumes a bi-clausal structure parallels the cleft analysis in English. Here, the focused element is base-generated in the post-verbal position and posits a movement of an abstract operator to [Spec, C] position at S- structure, as in the case of the cleft analysis. As for E- focus, he proposes a similar covert movement of an operator to [Spec, C] at S- structure. The difference here is that E- focus involves a mono-clausal structure whereas C- focus involves a bi-clausal one. Hence, both Gair

and Kariyakarawana propose a movement operation either of the focused element or an abstract operator at S- structure. The theoretical framework they have adopted is pre-minimalist. In my discussion of focus, I have exclusively dealt with the morphological focus with the focus marker *thamai* at both constituent and clausal levels. Further, the theoretical framework I adopt here is Minimalism and therefore I do not intend to discuss their work at length.

However, we need to pay attention to the following aspects of Gair and Kariyakarawana. In the first place, both of them have considered a number of particles such as *lu* (reportative), *yae* (dubitative), *ne* (tag) as focus particles which I have analyzed as epistemic modal markers occupying higher structural positions in line with Cinque (1999). This confusion, I believe, arises from a conflation of the scopal properties into the term ‘focus’. As I have argued, what these particles share with focus is an ability to take wide or narrow scope, but the semantic import they have differs significantly. Treating these particles as focus markers only serves to obscure the differences between the two. For example, in narrow focus, only *thamai* may be optional, as in (71), without affecting the focus interpretation, but each of the other particles, (which Gair and Kariyakarawana call focus particles) must be overtly present if their interpretation is to be encoded at all.

- (71) Lanka-we      aya      kanne bath (tamai)    \*\*(*lu*, *ne*, *yae*)  
       Sri Lanka-Loc people    eat-E    rice    (FOC)    \*\*(*REP*, *EPIS*, *DUB*)  
       ‘It is rice that the Sri Lankans eat’

Further, Gair’s analysis is based on the assumption that Sinhala is a non-configurational language. This point too is debatable as presently many of the

properties of configuraitonality are attributed to scrambling<sup>6</sup> . Some examples Gair offers, (notably those showing that focus is not clause bound) are not used/spoken by many native speakers of Sinhala including this researcher. Further, the –y suffix that Gair labels as a focus morpheme, functions more as a conjunctive particle (72), than a focusing one.

- (72) Mama bathu-Y, paanu-Y dekama kaewa  
 I rice-Y, bread-Y both eat(PST)  
 ‘I ate both rice and bread’

In line with the minimalist framework I follow in this study, I propose an analysis based on feature transfer/inheritance, where C’s uninterpretable features are valued by a lower head. Further, I propose a lower-vP peripheral focus projection for Sinhala, in addition to Rizzi’s left peripheral focus position. I claim that in Sinhala, what gets activated is this lower focus position. The clause structure with this vP peripheral focus position is as in (73).

- (73) ForceP [Force [FocusP [Focus [TopP [Top [ FinP [Fin [TP space] FocusP  
 [Focus [vP....]]]]]]]]]

Evidence for this lower focus projection comes from the distributional facts. Example (74) indicates that *thamai* occurs in the scope of the evidential *lu*, and examples (75)-(76) indicate that focus can come under the scope of only the reportative evidential<sup>7</sup>. In Chapter 3, we have projected the EVID head in the

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<sup>6</sup> Kariyakarawana, in his analysis, does not assume that Sinhala is non-configurational

<sup>7</sup> The non-compatibility of the focus marker with the evaluative “ne” and the epistemic “vage” can be explained in terms of the semantic anomaly that results in a speaker’s lack of commitment to the truth of the utterance expressed by those modals, and, in contrast, the confidence



higher TP region, in line with Cinque (1999). Therefore, what (74) indicates is that focus in Sinhala is located in the TP domain and not in the left periphery. Also, recall that, following Jayaseelan (2004, 2008), we have already proposed this vP peripheral focus position for object Wh movement in Sinhala.

- (74) Nimal **tamai lu** pol kaeduwe  
 Nimal **FOC EVID** coconuts plucked-E (Past)  
 ‘Nimal, it is said, is the one who plucked coconuts.’

- (75) Nimal tamai lu \*ne \*vage \*da pol kaeduwe  
 Nimal FOC EVID \*EVAL \*EPIS \*Q coconuts plucked-E  
 ‘It is said that it is Nimal who plucked coconuts’

- (76) Nimal pol kaeduwa tamai lu \*ne \*vage \*da  
 Nimal coconuts plucked FOC EVID \*EVAL \*EPIS \*Q  
 ‘It is said that Nimal plucked coconuts’ (indeed)

In Chapter 3, I had noted that mood irrealis (-*ta*) must be located above FIN. If the hierarchical location of focus that my analysis postulates is correct, we would expect that a *bava* complementizer followed by irrealis -*ta*, should not be focalized. The ungrammaticality of the FIN complementizer *bava-ta* with focus in both the narrow scope (77), and wide scope (78) demonstrates that focus is not located in the C domain.

- (77) \*Nimal **tamai** pol kadapu **bava-ta** saakki thiyenne  
 Nimal FOC coconuts pluck(PTCP) FIN-Irrealis evidence has-E  
 ‘Evidence is available for Nimal(focused) to have plucked coconuts’

---

expressed by the act of focusing. The ungrammaticality of focus with the INT (-*da*) is understood as Wh is inherently focused so that it need not be focused with an additional focus particle.

- (78) \*Nimal pol kadapu **bava-ta** **tamai** saakki thiyenne  
 Nimal coconuts pluck(PTCP) FIN-Irrealis FOC evidence has-E  
 ‘Evidence is available for Nimal to have plucked coconuts indeed’

With these observations, the head positions in the C domain are as follows (focus occupying a position in the TP area)

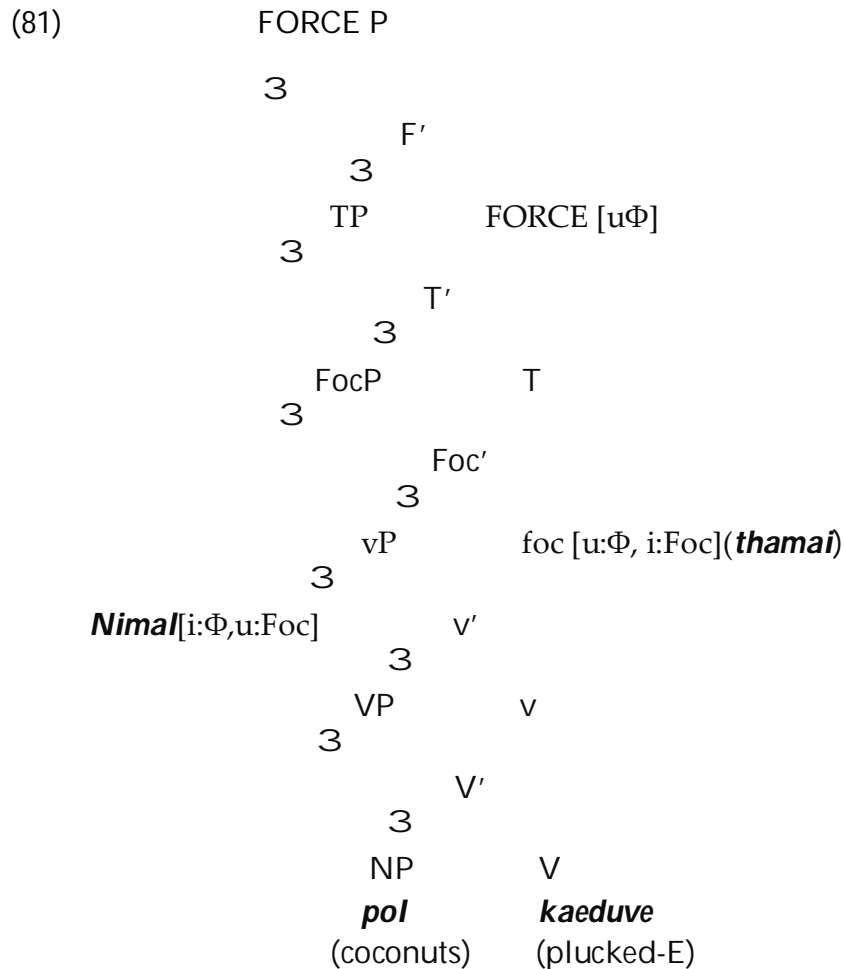
- (79) FORCE > INT > Fin > TP > Focus

For the embedded periphery, the head order is,

- (80) Force > INT > Md Irrealis (-ta) > Fin > TP > Focus

As focus in Sinhala is morphologically realized, the focus particle should be in the lexicon, and must have semantic content. I propose that, just like the modals, focus too modulates the properties of C/FORCE. The unvalued [P-features]/[u:FOC] of C gets valued through the simultaneous feature transfer-valuation with a lower head/heads (Richards 2007), and I propose that focus is the relevant head here. C also transfers its Agree-based features to the focus head. I consider the *-e* suffix as an overt reflex of this Agree relation, i.e., *-e* morphology indicates that an Agree-based feature of C/FORCE has been transferred to a focus head. Consequently, the focus head probes for a matching DP and agrees with it. I propose that the particular DP enters the derivation with an unvalued [Focus] feature, which is valued as [+FOC] in the Agree relation. However, C does not transfer its edge/EPP feature to the focus head so that there is no raising to [Spec, FOC] (81).

In contrast, the absence of the *-e* suffix indicates that such Agree-based feature transfer to a focus head has not taken place, thus making it a default form, marking clausal/wide scope focus.



In embedded clauses, however, as (82) and (83) show, only contrastive narrow scope marking of focus is possible, and propositional focus is barred. This leads me to suggest that non-feature transfer based default focus is not available in embedded contexts.

- (82) Ajith [Nimal **tamai** pol kaeduwe kiyala/\*bava] dannava  
 Ajith [Nimal FOC coconuts plucked-E FORCE/\*FIN] know  
 'Ajith knows that it is Nimal who plucked coconuts'
- (83) \*Ajith [Nimal pol kaeduwa **tamai** kiyala/bava] dannava  
 Ajith [Nimal coconuts plucked FOC FORCE/FIN] know  
 'Ajith knows that Nimal plucked coconuts, indeed'

#### 4.3 TOPIC: "*nang*"

The topic-comment articulation is a left peripheral syntactic operation that serves a discourse function in natural language. The English construction referred to as topicalization involves the articulation in topic and comment as in (84).

- (84) Your money<sub>i</sub>, you should give t<sub>i</sub> to Nimal (not to Ajith)

As shown in (84), topic is a pre-posed constituent marked off separately by the 'comma intonation' and conveys old information. Some languages overtly realize topic with morphological encoding (Gungbe, Zulu, Japanese, Korean), while in others it is phonologically null.

In Sinhala, topic is overtly realized in the particle *nang* (85). However, as the examples show, *nang* differs from the epistemic modals and focus in a number of respects, i.e., topic marking cannot trigger *-e* suffix (85), topicalization is possible only at constituent level, and is not allowed at clause level (86).

- (85) Nimal nang vibhage pass-una  
 Nimal TOP exam pass-was  
 'As for Nimal, he passed the exam'

(86) \*Nimal vibhage pass-una nang....

Nimal exam pass-was TOP

'If Nimal passed the exam....'

According to our modal and focus analysis, the absence of verbal morphology (-e suffix) in topic marking indicates that C does not transfer its [ $\mu\Phi$ ] to a topic head. Further, the inability of *nang* to attach at clause level indicates that *nang* is only a narrow scope marking head. These differences of the topic marker when compared to epistemic modals and focus highlight that topic is special. In Rizzi (2004), topic is a distinct class itself endowed with distinct properties; it does not belong to quantificational feature category of focus and Wh, or argumental class of phi-features, or modifier class of adverbs. Nevertheless, as we will see in the following sections, topic shares a number of properties with focus and epistemic modals in Sinhala.

Another property of Sinhala topic marking is that multiple topics are disallowed (87). This indicates that there can be only one structural position for topic, and there cannot be intermediate landing sites for additional topics. This differs from the recursive topic projections Rizzi proposes for Italian, below and above focus.

(87) \*Sunil nang vibhaage nang pass una

Sunil TOP exam TOP pass did

'As for Sunil, as for exam, he got through the exam'

Further, as in the case with epistemic modals and focus, the clause cannot have two topic marked constituents, one in the matrix and another in the embedded simultaneously (88).

- (88) \*Ajith nang [Sunil nang vibhaage pass una kiyala] dannava  
 Ajith TOP [Sunil TOP exam pass did COMP] know  
 'As for Ajith, he knows that as for Sunil, he got through the exam'

The same observation holds when there is a Wh element in the clause, as a Wh and a topic do not co-occur (89)-(90). This too differs from Italian, as a Wh operator is compatible with topic (topic > Wh) in Italian (Rizzi 1997).

- (89) \*Kauda vibhage nang pass une  
 Who exam TOP pass did-E  
 'As for exam, who got through the exam?'

- (90) \*oyaa vibhaage nang pass una da?  
 You exam TOP pass did Q  
 'As for exam, did you get through it?'

Topic is ambiguous with respect to weak crossover, as in (91), just as it was with focus.

- (91) Mee Professor-va<sub>i</sub> nang eyaage<sub>i</sub> goolayo t<sub>i</sub> godak varnana-karanava  
 This Professor-ACC TOP his students t<sub>i</sub> much appreciate-do  
 'As for this Professor, his students appreciate him much'

Bare quantificational elements such as *okkoma* (all), *haema-kenekma* (every one), and *haema-deyakma* (every thing) can be marked for topic<sup>8</sup>. (92)-(94).

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<sup>8</sup> One crucial observation that these quantificational elements highlight is that all of them must occur in a negative context when they are suffixed with the topic marker *nang*. *Nang* seems to attribute a negative environment even to the positive quantificational elements on a par with negative polarity items (NPIs) such as *kisima kenek* (no body). The following contrastive examples indicate this for *okkoma* (all).

- (92) Mata okkoma nang kanna baehae  
 I-DAT all TOP eat(INF) can't  
 'AS for everything, I cannot eat (them)'
- (93) Haema kenekma nang aave naehae  
 Every one TOP came-E Neg  
 'As for everyone, every one did not come'
- (94) Mata mee haema deyakma nang ussan-yanna baehae  
 I-DAT these every thing TOP carry(INF) Neg  
 'As for everything, I cannot carry everything'

However, *kisima-kenek* (no one) cannot be topic marked (95).

- (95) \*Kisima kenek nang aave naehae  
 No one TOP came Neg  
 'As for no one, no one came'

As (92)-(95) indicate, suffixing of the topic marker with bare quantificational elements produces mixed results for Sinhala as only a subset of the bare

- 
- (i) Mata okkoma kanna puluwan  
 I(DAT) all eat(INF) can  
 'I can eat all'
- (ii) \*Mata okkoma nang kanna puluwan  
 I(DAT) all TOP eat(INF) can  
 'As for all, I can eat all'
- (iii) Mata okkoma nang kanna baehae  
 I(DAT) all TOP eat(INF) cannot  
 'As for all, I cannot eat all'

In (iii), the topic marker seems to be an *n-* word in negative concord (Giannakidou 2006). This observation is further confirmed by example (95), whose ungrammaticality is due to the topic marker *nang*. Since (95) has a NPI (*kisima kenek*), *nang*, which seems to be an *n-* word here, makes the sentence ungrammatical as *kisima kenek* (no one) itself can be considered as an *n-* word, and hence two *n-* words lead to ungrammaticality.

quantificational elements behaves well with topicalization. The selection seems to be based on the nature of the quantificational element being positive or negative (polarity item vs. negative polarity item).

Rizzi uses these quantificational elements as a diagnostic to show the quantificational nature of focus and non-quantificational nature of topic. He uses them in a CLLD construction for topicalization, whereas the focalization is through prosodic means. In Sinhala, no element in the left dislocated construction can be topic marked as shown in (96)-(97).

- (96) \*haema deyakma nang, mata eeva ganna baehae  
 Every thing TOP, I-DAT those take(INF) Neg  
 'As for everything, I cannot take everything'

- (97) Hindi film \*nang, Mama eeva nitharama balanava  
 Hindi film TOP, I them always watch  
 'As for Hindi films, I always watch them'

However, the LD construction with a non-quantificational element is fine without the topic marker (98)

- (98) Hindi film, Mama eeva nitharama balanava  
 Hindi film, I them always watch  
 'As for Hindi films, I always watch them'

Having examined some of the properties of topic in Sinhala, now we must examine its structural position in the clause. We proposed a vP peripheral position for focus. However, the uniqueness of topic with respect to other features and properties (only narrow scope, no –e suffix etc.) indicates that topic



occupies a different position in the structure. For example, it cannot co-occur with the evidential mood (99) although we noticed that <FOCUS > EVID> was fine.

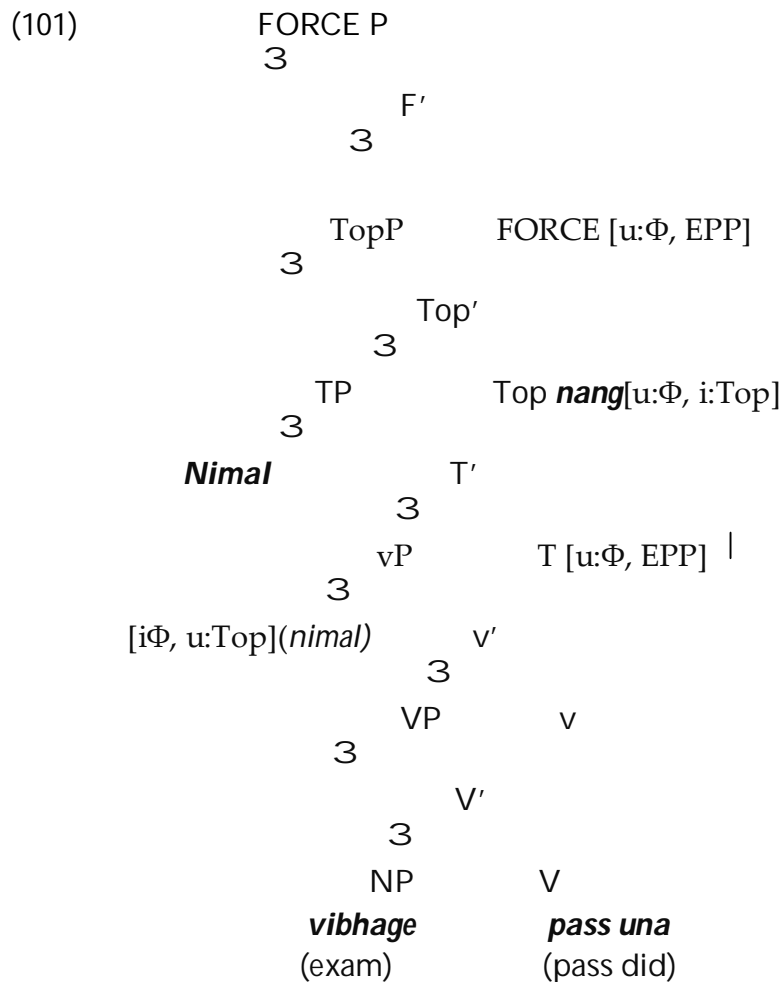
- (99) \*Nimal nang lu vibhage pass una/une  
 Nimal TOP EVID exam pass did/did-E  
 'As for Nimal, it is said that he passed the exam.'

I propose that topic occupies a distinct head position in the C-domain as proposed by Rizzi (1997) for Italian. Further, as topic is overtly realized in Sinhala, the topic particle should be in the lexicon with a semantic content. However, the absence of *-e* marking on the verb indicates that there is no Agree-based feature transfer from C to a topic head, and, that the topic head does not modulate the properties of C. Nevertheless, contrastive topics indicate that a matching XP needs to be in the scope of TOP. This further indicates that TOP should constitute an independent probe. I consider the absence of transfer/inheritance between C- TOP as evidence for this independent topic probe. Consequently, the [TOP] feature of the subject DP gets valued as [+TOP]. Since T receives the [u:Φ] and the EPP of C, the DP is attracted to [Spec, T]<sup>9</sup>. (101).

- (100) Nimal nang vibhage pass una  
 Nimal TOP exam pass did  
 'As for Nimal, he passed the exam.'

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<sup>9</sup> In this case, C's [uFs] can be valued as they are transferred to the T- head in simultaneous value-transfer (Richards, Marc D. 2007)



Now let us see the case of both topic and focus co-occurring in the same clause as in (102)

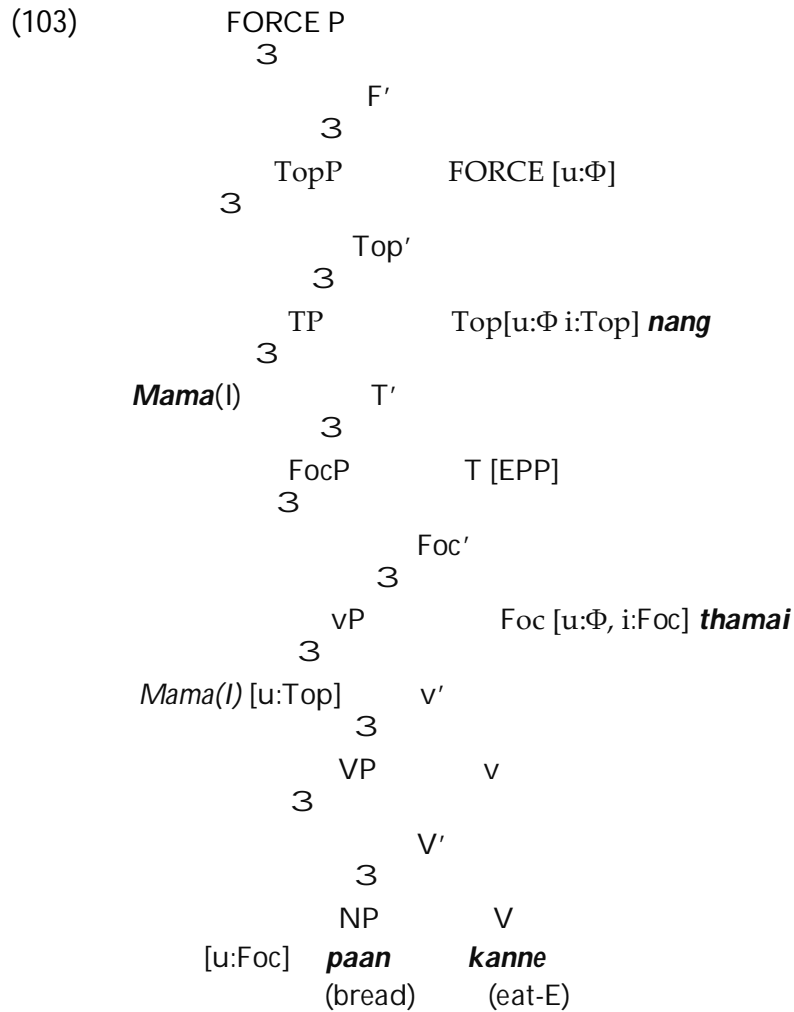
(102) Mama nang paan tamai kanne

I TOP bread FOC eat-E

‘As for me, it is bread that I eat’

I propose that the focus head receives the [u:phi] features of C/FORCE, as the FOC head modulates the properties of C/FORCE. The –e suffix indicates this feature transfer and valuation. Consequently, the focus head agrees with the object DP which has an unvalued [Focus] feature, although there is no raising to [Spec,

FOC]. The topic head, that does not modulate the properties of C, probes independently and agrees with the subject DP, and values it as [+Top]. However, T attracts the subject DP to its specifier by virtue of its EPP (103).



The structural position of Topic with respect to the other heads in the C domain for the matrix clause is as follows.

(104) FORCE > Top > TP > INT > Focus > vP

For the embedded periphery, the head order is as follows:

(105) Force > Top > Md Irrealis (-ta) > Fin > TP > INT > Foc > vP

The investigation of Wh, topic, and focus has shown that they share certain properties irrespective of their structural position in the clause. These properties are evident in the narrow (constituent level) scope marking. Table 2 summarizes these properties.

**Table 3: Properties of Topic, Focus, and INT**

| Property                                                | Topic     | Focus     | INT ( <i>da</i> ) |
|---------------------------------------------------------|-----------|-----------|-------------------|
| Contrastive narrow scope possible                       | ✓         | ✓         | ✓                 |
| -e suffix on the verb in narrow scope                   | x         | ✓         | ✓                 |
| Clausal level scope possible                            | x         | ✓         | ✓                 |
| Ability to pied-pipe an XP                              | ✓         | ✓         | ✓                 |
| Occur in root clause                                    | ✓         | ✓         | ✓                 |
| Occur in embedded clause                                | ✓         | ✓         | ✓                 |
| Can occur in the scope of Wh                            | x         | x         | *NA               |
| Weak cross over                                         | ambiguous | ambiguous | ✓                 |
| Multiple occurrence in the same clause                  | x         | x         | x                 |
| One in matrix and one in embedded clause simultaneously | x         | x         | x                 |
| Compatible with a Wh in the same clause                 | x         | x         | NA                |
| Compatible with a Wh in a different clause              | x         | ✓         | NA                |

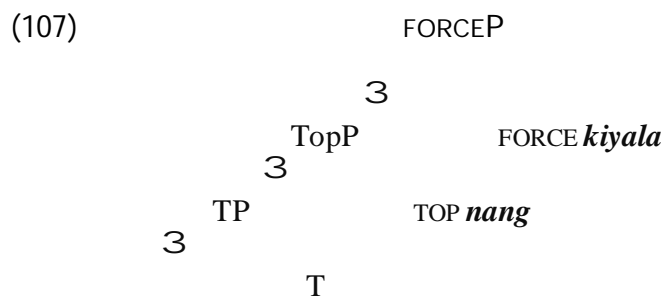
\*NA- not applicable

#### 4.4 Sinhala Information Structure: A Unified Cartography

In the preceding sections we examined the Wh, topic, and focus particles of the Sinhala clause in terms of clause structure. We noticed that they are rigidly, hierarchically organized among themselves. This was evident both in the matrix and embedded peripheries. The head orders for the CP domain are as follows.

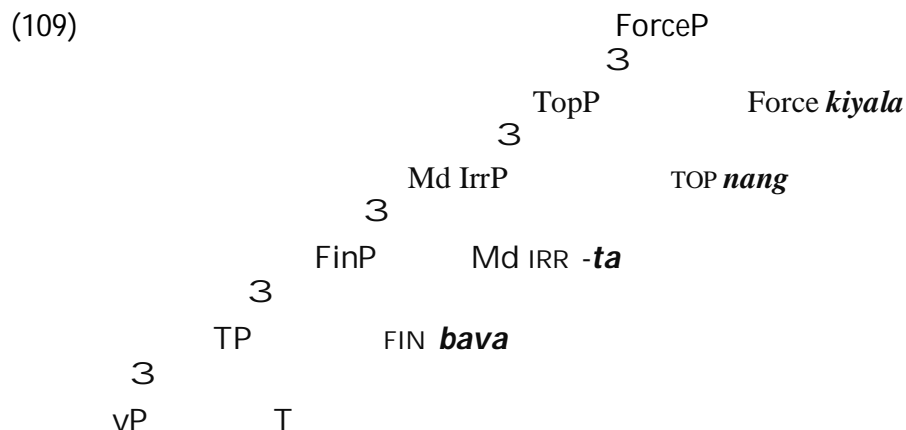
### CP Domain: Root Clause

(106) FORCE (MD Sp Act) > TOP > TP



### CP Domain: Embedded Clause

(108) Force > Topic > Md Irrealis (-ta) > Fin > TP



## 4.5 Conclusion

This chapter examined the information structure of the Sinhala clause with respect to morphological focus and topic marking, and also the position of Wh in the clause structure. Our analysis of morphological focus showed that focus in Sinhala occupies a vP peripheral focus position in line with Jayaseelan (2004, 2008). We noticed that this is the same structural position for (object) Wh. Our discussion of topic also showed rather unique properties and we concluded that its structural position is in the left periphery, as in Rizzi (2007). We noticed that there is considerable overlap between the CP and TP peripheries with respect to the cartographies of Cinque (1999) and Rizzi (1997, 1999). Notably, the structural positions of focus and Wh reveal that these cartographic frameworks interleave. For example, we located Rizzi's (1999) INT head among the functional hierarchy of Cinque (1999): also, a Wh position and a focus position in the TP domain as it is in Malayalam. This empirical evidence justifies the question that we raised in the case of mood/modality that 'how much is universal is the universal' in these frameworks?

## CHAPTER 5

### RAISING COMPLEMENTS IN SINHALA

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In the preceding chapter we examined the interaction of information structure with the clause structure. This chapter examines the raising complements and ECM of Sinhala. The main arguments in the chapter are that: Sinhala does not have a raising predicate and the lexical item in Sinhala that corresponds to the raising predicate ‘*seem*’ in English is actually an epistemic modal head. Another argument is that Sinhala does not have raising to object or ECM.

This chapter is organized along the following lines. Section 5.1 introduces raising to subject and the Sinhala facts. Section 5.2 presents a pseudo-raising analysis of Sinhala. This is followed by, in section 5.3, an analysis of *vage* as an epistemic modal. Section 5.4 examines raising to object and ECM. The discussion includes an examination of cross linguistic facts in addition to Sinhala. This is followed by a brief chapter conclusion in 5.5.

#### 5.1 Raising to Subject

Cross-linguistically, raising predicates in natural languages typically constitute a small closed-class. So it is not exactly a matter of surprise that Sinhala appears to have only one potential candidate for analysis as a raising predicate- *vage*. Like English *seem*, the complement of *vage* must be infinitival in inflection (1), and the thematic dependency is between the subject and the embedded predicate.

(1) [Nimal dara palanna] vage

[Nimal wood chop(INF)] seem

‘Nimal seems to chop wood’

However, unlike the English ‘seem’, *vage* can occur in a finite clause with tense/aspect (2) and mood (3)<sup>1</sup>

(2) Nimal hattiya bindala/bindinava vage

Nimal pot break(PTCP)/break(PROG) seem

‘Seems Nimal has broken the pot/is breaking the pot’

(3) Nimal-ta kaareka elawanna puluwan vage

N-DAT car drive(INF) can seem

‘Seems Nimal can drive the car’

The issue we must explore then is whether this construction should receive the same analysis as in English, whereby the embedded external argument is displaced to matrix subject position. Recall that in English, the motivation for raising was to satisfy the EPP and NOM case requirement of the sentence and the requirement for the infinitival subject. However, since Sinhala *vage* (seem) can occur in a matrix finite sentence or a finite complement clause, a case driven movement that parallels raising by an infinitival subject in English cannot be

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<sup>1</sup> The finite constructions in (2) and (3) are different from the English construction ‘*it seems Nimal has broken the pot*’. Although Sinhala lacks overt expletive, a construction analogous to the English, this construction needs a higher predicate ‘*peenava*’ (look so/seem), which conveys the interpretation that the speaker is witnessing the event that he reports. The following example illustrates this.

- (i) [Nimal hattiya bindala vage] peenava  
[Nimal pot break(PTCP) vage] look so/seem  
‘It seems Nimal has broken the pot’  
‘It looks like Nimal has broken the pot’  
‘Looks like Nimal has broken the pot’



motivated. In that case, if the embedded subject stays in situ, then the whole embedded clause should be the subject of *vage*, as shown in (4).

- (4) [Nimal dara okkoma palanava] vage  
 [Nimal wood all chop(PRS)] seem  
 'Seems Nimal is chopping all the wood.'

Movement of Nimal out of the base position will amount to an improper movement from an A position to another A position, crossing the A-bar boundary of CP (Chomsky 1995). In Minimalist terms too, it amounts to an improper raising. The DP can establish an Agree relation with the phi-complete embedded T, and satisfy all its feature requirements/valuation. Therefore, movement from this point onwards is improper.

These observations also indicate that the *vage* construction in Sinhala does not form a defective category in such cases. This seems to be correct as the complementizer and functional heads such as focus (example 5) can occur, suggesting that a CP projection is available for *vage*.

- (5) Nimal kiuwa [Ajith vage kenek tamai ada aavE kiyala]  
 Nimal said [Ajith seem person FOC today came-E COMP]  
 'Nimal said that it is a person like Ajith that came today.'

Before moving onto an analysis of *vage* that meets these requirements, I will in the next sub-section, consider potential parallels from other languages to the *vage* construction in Sinhala: Especially, I will examine whether *vage* construction may be pseudo-raising ones, along the lines proposed by Rooryck (2000)

## 5.2 Pseudo Raising

Rooryck (2000) observes that European Portuguese has a construction that involves raising out of a tensed CP (example 6), as does English (7) (Rooryck 2000: 54, 55).

(6) Tu pareces que estas doente

You seem<sub>2SG</sub> that (you) are<sub>2SG</sub> sick

(7) a. The cows seem [like/as if/ as though/ \*that] they have eaten too much grass.

b. The cows look/sound [like/as if/ as though/ \*that] they have eaten too much grass.

Rooryck points out that since both matrix and embedded predicates agree with matrix subject, it is evidence for raising to that position from an embedded one. In (7, a), observing that the pronominal subject (*they*) of the embedded clause is obligatorily co-referential with the matrix subject (*the cows*), Rooryck suggests that these pronouns function as variables for the raised subject.

These variables (pronouns *you* and *they* in English and *pro* in Portuguese), may have a quasi-universal interpretation when bound by a universal operator. In (8) and (9), generic tense is the binder of variables (Rooryck, 2000: 14, a,f).

(8) In France, they drive like madmen

(9) In Holland, you don't drink good coffee

Rooryck claims that the condition of strong binding is the mechanism behind pseudo-raising via the example (10). Here, there is no embedded binder; and since a full NP cannot bear a quasi-universal interpretation, it cannot function as

a variable for the matrix subject. This leaves the matrix subject without a theta role, leading to ungrammaticality (Rooryck, 2000: 15, a).

(10) \*Tu pareces que o Paulo esta doente

You seem<sub>2SG</sub> that Paulo is sick

In order to overcome the barrierhood of CP for strong binding, Rooryck proposes that the Agrs of the embedded finite clause moves to [Spec, C] of the lower clause and then the subject moves to the higher Agrs projection. The trace left behind by this movement functions as a variable for the matrix subject through which it gets the theta role. The matrix subject should be always definite as only such NPs can function as universal operators that assign a quasi-universal interpretation to the pronouns bound as variables.

As for the motivation for the lower Agrs to move to [Spec, C], Rooryck claims that the raising predicates select a CP with a [+Foc] feature in C. This is due to the comparative nature of raising predicates which, in many languages, derive from verbs denoting comparison/resemblance. *Seem* turns C into a comparative focus operator. Movement of AgrsP to [Spec, C] allows the comparative focus C to establish a comparative relation between the AgrsP in C and its variable left behind after movement. Rooryck proposes that in pseudo-raising, the movement of AgrsP to [Spec, C] takes place covertly.

### 5.3 “*Vage*’ as an Epistemic Modal

Consider now how Rooryck’s proposals apply to Sinhala, as *vage*, like *parece*, subcategorizes for a finite complement. As generally observed for other languages, Sinhala *vage* too is associated with resemblance/comparison as in (11).

- (11) Ajith, Nimal vage mai  
 Ajith Nimal vage emph  
 'Ajith resembles Nimal'

Further, the Sinhala raising construction with *vage* shows comparative focus properties even without the focus marker *thamai* (12).

- (12) Nimal vage asaneepen innE  
 Nimal seem ill be-E  
 'It is Nimal who seems to be ill'

At the same time, Sinhala does not exhibit the definiteness requirement on the matrix subject, like English and Portuguese, as (13) shows.

- (13) Bus eka-k enava vage  
 Bus one-INDF come seem  
 'Seems a bus is coming'

Example (13) suggests that the operator-binding relationship cannot take place in such instances when the matrix subject cannot assign a quasi-universal interpretation required for strong binding. This in turn implies that the embedded subject does not raise to the matrix in these cases, and strong binding may take place only when the matrix subject is a definite NP, as shown in (14).

- (14) Lamai vaeda ivara karala vage  
 Children work finish do(PTCP) seem  
 'Seems children have finished work'

Sinhala *vage* patterns with English *seem* in terms of c-selection by the raising predicate, in that, both predicative complements (*ill*), and full complements (*eat*)

etc. are selected by *vage*. In Portuguese, however, the pseudo raising construction is restricted only to predicative verbs; thus, despite the fact that Sinhala shows some symmetry with the Portuguese pseudo raising construction in terms of finiteness and focus, the differences between the two suggest to me that Sinhala *vage* construction does not warrant a pseudo-raising analysis.

In the first place, Sinhala *vage* construction is not bi-clausal unlike the pseudo raising construction in Portuguese, or the English 'seem' construction. If the Sinhala construction was indeed bi-clausal, then, *vage* should select an embedded clause with the complementizer *kiyala*; however, as illustrated in (15), this is impossible.

- (15) \*Nimal [Ajith hattiya binda/bindala                      kiyala]        vage  
           Nimal [Ajith pot            break(PST)/break(PTCP)COMP]        seem  
           ?????

In the Portuguese pseudo raising construction, both the embedded verb and the raising verb show agreement with the matrix subject. However, Sinhala lacks phi-feature agreement so that it is difficult to determine whether the embedded subject has raised to the matrix clause. Another difference is the absence of an overt complementizer in Sinhala, whereas Portuguese has *que* (that) and English has *like/as though/as if* in the pseudo raising constructions. Therefore, Sinhala does not provide a configuration of comparison necessary for raising and strong binding.

Additionally, there is further interpretive and syntactic evidence to support these claims. In all the above examples involving *vage*, there is an implicit higher predicate such as '*peenava*' (look like), '*hadanava*' (getting ready/going to), etc.

which *c-* selects *vage* (16)-(17). In this case, the higher predicate has a deictic feature suggesting that the speaker is implicitly a witness to the embedded event.

- (16) Nimal prasnaya theerum aragenā vage kiyala] *peenava*  
 [Nimal problem understand taken seem COMP] see  
 'Looks to me/us that Nimal seems to have understood the problem'

- (17) Vahinna vage hadann-E  
 Rain(INF) seem getting ready-E  
 'It is getting ready to rain/It is going to rain'

If the speaker is overtly present, the DP has to be in the dative form, as in (18).

- (18) [Nimal prasnaya theerum-aragenā vage kiyala] mata *peenava*  
 [Nimal problem understand-taken seem COMP] I(DAT) see  
 'Looks to me that Nimal Seems to have understood the problem'

The above examples indicate that it is not *vage* (seem) that selects the propositional complement, but rather the higher predicate *peenava* (see) or *hadanava* (get ready/going to) that selects the propositional complement with *vage* (19). Therefore, (16)-(19) suggest that *vage* cannot be a predicate and it should have some other grammatical or discourse function.

- (19) Matrix sub [embedded sub predicate *vage*] matrix predicate

Further, when the matrix subject and the complementizer are absent, the higher predicate can be optionally assigned the *-e* suffix, as in (20)-(21). In Sinhala, in general, the *-e* suffix indicates the presence of focus/mood/modality in the structure.

(20) [Nimal prasnaya theerum aragatta vage] pennE/peenava  
 [Nimal problem understand took seem] look-E/look(PRS)  
 'It looks like Nimal seems to have understood the problem'

(21) Vahinna vage hadann-E  
 Rain(INF) seem getting ready-E  
 'It is getting ready to rain/It is going to rain'

If *vage* is a raising predicate, a Wh question should be grammatical with *vage*. But this is not so. A Wh question with *vage* does not convey a question interpretation; rather the Wh is interpreted here simply an existential pronoun, as in (22). This shows that Q- feature of Wh cannot be checked in these contexts.

(22) Kauda dara okkoma palala vage  
 Wh-Q wood all chop(PTCP) seem  
 'Seems somebody has chopped all the wood.'

However, a yes/no question is fine with *vage*, as in (23).

(23) Mama mahath vela vage da?  
 I fat become(PTCP) seem Q?  
 'Do I seem to have grown fat?'

The question arises why this is so? It is evident that the behavior of *vage* in the above Wh examples is similar to the behavior of a focus/mood/modal marker of Sinhala as shown in (24)-(27). Example (24) has *vage*. In (25), the whole sentence is focused. Example (26) shows a report, and, (27) indicates evaluation/shared information.

(24) Kauda dara okkoma palala vage

Wh-Q wood all chop(PTCP) seem

'Seems somebody has chopped all the wood'

(25) Kauda dara okkoma palala tamai

Wh-Q wood all chop(PTCP) FOC

'Somebody has chopped all the wood, indeed'

(26) Kauda dara okkoma palala lu

Wh-Q wood all chop(PTCP) EVID

'Somebody has chopped all the wood, it is said'

(27) Kauda dara okkoma palala ne

Wh-Q wood all chop(PTCP) EVAL

'Somebody has chopped all the wood' (evaluation/shared information)

As (25)-(27) indicate, the interpretation of the Wh operator *kauda* with FOC/EVID/EVAL is that of an existential pronoun (somebody), exactly corresponding to its occurrence with *vage* in (24). In all these examples, *vage* and the discourse particles scope mark the whole proposition, establishing the same pattern.

It was noted earlier (12) that *vage* carries a comparative focus interpretation. When *vage* has scope over a preverbal constituent, it singles out this particular constituent out of an implied contrastive set. I repeat (12) as (28).

(28) Nimal **vage** asaneepen inn-E

Nimal **seem** ill(ADV) Be-E

'It seems to be Nimal who is ill' (not Sunil)



Now, contrast (28) with (29); (29) has *thamai*, the focus particle, scope marking a DP. As in (28) with *vage*, when *thamai* occurs clause internally, the verb gets an –e suffix indicating that a clause internal constituent is under the scope of focus (or mood/modality). The same can be observed with *vage* as the preceding *Nimal* in (28) is scope marked by *vage*, thus establishing a strong parallel with focus.

- (29) Nimal **thamai** asaneepen inn-E  
 Nimal **FOC** ill(ADV) Be-E  
 ‘It is Nimal who is ill’ (not Sunil)

Negation facts also support the same conclusion. Sinhala has a number of Neg markers such as *naeha/naette/nemei* which have a differential distribution. A focused constituent or a constituent under the scope of focus/mood/modality is negated with the Neg *nemei* (30). As indicated in (31), *vage* too, is negated with *Nemei*.

- (30) Nimal **nemei lu/ne** asaneepen inn-E  
 Nimal **NEG EVID/EVAL** ill(ADV) Be-E  
 ‘It is said that it is not Nimal who is ill/shared information’
- (31) Nimal **nemei vage** asaneepen inn-E  
 Nimal **NEG seem** ill(ADV) Be-E  
 ‘It is not Nimal who seems to be ill’ (may be Sunil)

The interrelation between raising predicates and focus is not new to languages as observed by Rooryck (2000). He provides cross-linguistic evidence to argue that *seem* type verbs are related to verbs of comparison, and concludes that in many languages, the verb stem of verbs of comparison and *seem* are identical as they relate to comparison or resemblance. As focus can informally be taken to involve

implicit reference to a set, of which one member is given saliency, the interrelation with raising verbs and focus is explicit.

Returning to Sinhala, when *vage* occurs clause finally, the related syntactic phenomena indicate the similarity of *vage* to focus or a mood/modal particle. In this case the whole proposition comes under its scope. The verb is not *e*-suffixed, as it is the case with focus/mood/modality scoping over the whole proposition (32)-(33).

(32) Nimal kaareka soodala vage  
 Nimal car wash(PTCP) seem  
 'Seems Nimal has washed the car'

(33) Nimal kaareka soodala tamai/lu/ne  
 Nimal car wash(PTCP) FOC/EVID/EVAL  
 'Nimal has washed the car' (whole proposition under the scope of FOC/EVID/EVAL)

*Vage* shows a similar distribution with respect to clefting too. The Sinhala cleft construction (Kariyakarawana 1998)<sup>2</sup> is mono-clausal with a post-verbal subject. The focus marker *thamai* is optional in this case, though a mood/modality marker or *vage* is obligatory in the structure to convey that particular interpretation (34).

(34) Kaareka soodala thiyennE Nimal (tamai)  
 Car(ACC) wash(PTCP) has-E Nimal (FOC)  
 'It is Nimal who has washed the car'

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<sup>2</sup> Kariyakarawana (1998) analyses this as a bi-clausal construction

- (35) Kaareka soodala thiyennE Nimal vage/lu/ ne  
 Car(ACC) wash(PTCP) has-E Nimal seem/EVID/ EVAL

The above distributional facts show the strong plausibility of determining *vage* as a mood/modal particle. That it is not a focus particle is evident in (34)-(35) where the focus particle *thamai* can be optional, but *vage* or any other mood/modality marker is obligatory in order to convey that particular interpretation. Further evidence for a modal analysis of *vage* comes from its distribution with *thamai*—the focus marker. Sinhala does not allow focus marking twice in the same structure (36). But, *vage* can co-occur with *thamai* (37)-(38). These distributional evidence confirm our observation that *vage* is not a focus particle.

- (36) \*Nimal tamai kaareka tamai seeduwe  
 Nimal FOC car FOC washed-E  
 ‘It is Nimal, it is the car (that) he washed’

- (37) Nimal **vage tamai** mama eya-va daekkeE  
 Nimal **seem FOC** I he-ACC saw-E  
 ‘It is like Nimal (that) I saw him’

- (38) Daen kaareka aluth ekak **vage tamai**  
 Now car new one **seem FOC**  
 ‘It looks like as if the car is a new one now’ (whole proposition focused)

Thus, *vage* is an epistemic modal marker lexicalized in the language just like the other mood/modal markers such as *lu* ‘EVID’, and *ne* ‘EVAL’. *Vage* shows weak epistemic modality to whose truth the speaker does not make much commitment. Example (39) illustrates this interpretive fact.

- (39) Kaareka soodala thiyenne Ajith vage  
 Car(ACC) wash(PTCP) has-E Ajith seem  
 'Looks like it is Ajith who has washed the car' (But it may be somebody  
 else too/ may be the speaker is wrong with respect to who washed the car)

This conclusion that *vage* is an epistemic modal marker is further confirmed by its complementizer selection and predicate choice. We noted in Chapter 2, that in Sinhala, the *bava* complementizer is strongly factive, whereas the *kiyala* complementizer is quotative. This also corresponded with a higher predicate selection where *kiyala* is selected by predicates showing epistemic attitude, and, *bava* is not selected by such predicates. *Vage* also corresponds to this same distinction as it cannot be selected by the *bava* complementizer. However, the same sentence improves with *kiyala* complementizer as shown in the contrast of (40)-(41).

- (40) \*Ajith hithuwa Nimal asaneepen vage **bava**  
 Ajith thought Nimal ill-ADV seem FIN  
 'Ajith thought that Nimal seemed to be ill'

- (41) Ajith hithuwa Nimal asaneepen vage **kiyala**  
 Ajith thought Nimal ill-ADV seem FORCE  
 'Ajith thought that Nimal seemed to be ill'

Based on all the above semantic and distributional evidence, I conclude that *vage* is an epistemic modal particle of Sinhala along with other mood/modal particles such as *lu* 'EVID', and *ne* 'EVAL'. As for its structural position, we have already observed in Chapter 3 that *vage* occurs higher among the (higher) epistemic modals in Cinque's functional head sequence.

## 5.4 Raising to Object and ECM

### 5.4.1 *Raising to Object in English and Other Languages*

The phenomenon of raising to object (RtoO) has been widely debated in the literature, particularly due to the undetermined status of the immediately post verbal NP/DP as in (42).

(42) Nimal believes Ravi to be a genius

Is the post verbal NP/DP an object of the higher predicate or is it the subject of the embedded infinitive clause? An examination of the properties of the RtoO in English reveals that the data provide evidence for both type of analyses. Cross linguistic evidence too point to the same direction as we will see later. The following English examples provide some useful insights.

(43) Nimal believes there to be no way out of the problem

(44) Nimal believes it to be raining in Colombo

(45) Nimal believes the shit to have hit the fan

The controversial aspect of RtoO is its display of object properties in addition to subject properties. For example, when a pronoun replaces the NP in the post-verbal position, the pronoun appears in the accusative rather than in the nominative (46). Further, an anaphor co-referential with the matrix subject would take reflexive form (47), and also in the case of passivization, the lower NP can be the subject of the passive verb (48).

(46) Nimal believes him/\*he to be a genius

(47) Nimal believes himself/\*he to be a genius

(48) Ravi is believed (by Nimal) to be a genius.

According to the RtoO analysis, the lower NP Ravi is an object of the higher predicate '*believe*' at the relevant level of representation (Rosenbaum 1967, Postal 1974). Therefore, arguments for the relevant NP to be part of the main clause are arguments supporting the RtoO analysis. One diagnostic to test this, is adverb placement. If the post-verbal NP is part of the embedded clause, a main clause adverb should be able to intervene between the main verb and the post-verbal subject. But this is not possible, as shown by (49)

(49) Nimal believes (\*strongly) Ravi to be a genius

Another diagnostic is the particle construction. Kayne (1985) provides the following example to argue that the post-verbal NP is in the main clause.

(50) She made Jerry out to be famous

According to this argument, since '*made*' and '*out*' are in the main clause, then '*Jerry*' that appears between the two should be in the main clause as well.

Further arguments for the RtoO analysis are related to principle C of the binding theory. As it triggers a principle C effect in the main clause, it can bind a reciprocal in the main clause, and it can license a negative polarity item (NPI) in the main clause. All these show that the post-verbal NP is higher in the structure than being a lower subject.

In contrast, according to the exceptional case marking (ECM) analysis (Chomsky 1973), the lower NP occupies the subject position in all levels of representation. The verb exceptionally assigns case to this NP which is not its thematic direct object. One diagnostic to show this, is adverb placement. If the post verbal NP is part of the main clause, then a main clause adverb should be fine after the supposed main clause direct object; But this is not so.

(51) Nimal believes Ravi (\*strongly) to be a genius

Another argument for ECM is related to extraction. Runner (2006), quoting Chomsky (1973) argues that the post verbal NP cannot be a direct object of the higher predicate as illustrated in the following contrast (Runner 2006: 11).

(52) Which famous singer does Marcia always believe [gossip about ---]

(53) \*Which famous singer does Marcia always believe [gossip about ---]  
to have ruined his career.

(54) \*Which famous singer does Marcia always believe [gossip about ---]  
has ruined his career.

According to his argument, example (52) is fine because it is an extraction from the object position, whereas the other extractions are from subject positions and hence illicit.

The above diagnostics and arguments highlight the mixed properties of RtoO. Though the examples are in English, most of the diagnostics apply across languages. Nevertheless, controversies remain even regarding many of the other languages too, as RtoO shows mixed properties in them. Among those Asian languages that show mixed properties of RtoO are, Japanese (Kuno 1976), Korean (Yoon 2007), Tagalog (Kroeger 1993), Cebuano (Bell 1976), of Austronesian languages, Indonesian (Chung 1976), Javanese (Davies 1990), of the Javanic languages of Indonesia.

#### **5.4.2 The Sinhala Facts**

The predicates that correspond to the English raising to object (RtoO) 'believe' and 'expect' in Sinhala are '*visvaasa-karana*' 'believe-do' and '*balaporottu-venava*

‘expect be’ respectively. However, unlike in the case of English ‘believe’ and ‘expect’, the embedded subject receives nominative and the complementizer is obligatory in similar constructions in Sinhala. Example (55) fulfills both criteria and hence is grammatical. In (56), the embedded subject is accusative, and in (57), the complementizer is absent, and hence both sentences are ruled out.

- (55) Ajith visvaasa kara [Nimal kaar horakam karanava kiyala]  
 Ajith believe did [N(NOM) car(PL) steal do(PRS) COMP]  
 ‘Ajith believed that Nimal steals/is stealing cars’
- (56) \*Ajith visvaasa kara [Nimal-**va** kaar horakam karanava kiyala]  
 Ajith believe did [N(**ACC**) car(PL) steal do(PRS) COMP]  
 ‘Ajith believed that Nimal steals/is stealing cars’
- (57) \*Ajith visvaasa kara [Nimal kaar horakam karanava]  
 Ajith believe did [N(NOM) car(PL) steal do(PRS)]  
 ‘Ajith believed Nimal steals/is stealing cars’

Given the finiteness properties in the grammatical (55), the question arises whether the embedded complement is indeed finite. Traditional definitions of finiteness have often treated finiteness as a property of the verb, and hence relied on the inflectional criteria such as tense and person/number agreement. Correlation with nominative case and the distributional criteria such as main clause hood (independence of the verb) were also considered by others as evidence for finiteness (Matthews 1997).

Nikolaeva (2007) argues that the traditional approach has no principled grounds for establishing which feature is responsible for finiteness. She holds that neither



tense nor agreement is a universal category, and hence languages with minimum inflectional morphology cannot be expected to realize all these features of finiteness simultaneously. She questions the empirical validity of these criteria where typological studies (Noonan 2007), have shown a number of languages that do not morphologically realize tense and/or agreement. She argues that if agreement is considered as the relevant category, languages like Japanese, where verbs inflect for tense, but not agreement, lack finiteness altogether.

What do the Sinhala facts indicate? Colloquial Sinhala, like Japanese, does not show phi-feature agreement in general, although it shows person and number agreement with a 1<sup>st</sup> person subject and a hortative verb. It also shows past/non-past distinction on the verb. We have already observed that the complementizer *kiyala* occurs in finite contexts and the subject is assigned nominative. Therefore, with these evidence in hand, we need to examine the complements of RtoO predicates again. Example (58) has an embedded past tense verb, the subject is assigned nominative, and the complementizer *kiyala* is present.

- (58) Mama visvaasa karanava [Nimal caareka horakam kara kiyala]  
       I believe do [Nimal car steal did COMP]  
       ‘I believe that Nimal stole the car.’

Similar results obtain even if we substitute *visvaasa-karanava* ‘believe’ with ‘expect’ or ‘think’, and when we substitute *kiyala* complementizer with *bava* complementizer. Now the question is, are those complements finite as indicated by these finiteness properties?

In the absence of phi-feature agreement, the next plausible candidate is Tense. One important diagnostic in this regard is temporal adverbs that can determine the temporal properties of the matrix and the embedded clause. That is, does the

embedded clause have temporal properties independent of the matrix tense or is the tense of the embedded clause undecided with respect to the matrix? Examples (59)-(60) examine this aspect.

(59) Mama **ada** visvaasa karanava [Nimal **edaa** caareka horakam  
I **today** believe do [Nimal **that day** car steal  
kara kiyala]  
did COMP]  
'I believe today that Nimal stole the car that day.'

(60) Mama **ada** visvaasa karanava [Nimal **edaa** veeray-ek una  
I **today** believe do [Nimal **that day** hero-INDF was  
kiyala]  
COMP]  
'I believe today that Nimal became a hero that day'

Examples (59) and (60) suggest that independent time reference is available with the embedded complements. This and the other evidence (nominative case, overt complementizer) confirm that the embedded clauses are finite. This creates problems for the GB analysis of raising to object. In the first place, these phenomena indicate that there is no RtoO in Sinhala as there is no motivation for the embedded subject to raise. However, if we assume that it raises, then the question arises why does it need to raise since its case requirement is fulfilled within the clause itself? Further, as the presence of the complementizer shows, the embedded clauses are CPs/ForcePs. There is no possibility of S-bar deletion

(Chomsky 1981) as well, since the C position is overtly filled by the complementizer.

In the next sub-section, I examine a proposal by Kuno (1976) for RtoO in Japanese to further understand the Sinhala facts.

### 5.4.3 Kuno (1976)

Kuno's argument for RtoO in Japanese is centered on the contrast between the following constructions, one with the embedded subject getting accusative (61), and another with the embedded nominative (62) (Kuno, 1976:256: 50, 51).

(61) Yamada wa Tanaka o, orokanimo, tensai da to omotteita  
Yamada top Tanaka Acc stupidly genius is Comp Thought  
'Stupidly, yamada thought Tanaka to be a genius'

(62) \* Yamada wa Tanaka ga, orokanimo, tensai da to omotteita  
Yamada top Tanaka Nom stupidly genius is Comp Thought  
'Stupidly, yamada thought Tanaka to be a genius'

Kuno argues that the accusative marked embedded subject raises to the higher object position whereas the nominative embedded subject stays in situ. As evidence for this, he shows that the adverb *orokanimo* 'stupidly' that modifies the matrix verb *omotteita* 'thought' can be placed after the accusative embedded subject (61). In contrast, he shows that when the same adverb is placed after the nominative embedded subject, the sentence is ungrammatical (62).

With respect to scrambling, Kuno shows that the accusative embedded subject can be scrambled in front of the main clause subject, and, that this is possible

because the embedded subject has raised. However, this is not so with the nominative embedded subject. Kuno argues that the grammaticality of the accusative subject is due to its raising, as dependents of a similar clause can be re-ordered within that clause, whereas this re-ordering is not possible if the subject has not raised.

The same accusative/nominative asymmetry accounts for the quantifier scope interpretation in Japanese. He shows that when the existential quantifier '*dareka*' (someone) precedes the universal quantifier '*minna*' (everyone), the preferred interpretation is with the existential quantifier having scope over the universal quantifier. However, in this case, he shows the inverse linking too is possible, whereas such reverse quantificational scope interpretation is not available when the embedded subject is nominative.

Kuno also presents evidence from reflexives and pronominals in support of RtoO analysis. In Japanese, reflexive-antecedence is not restricted to clause-mate subjects, and, the reflexive pronoun *zibun* 'self' may refer to a subject antecedent even in a higher clause. However, personal pronouns cannot have an antecedent in the same clause. The contrast between the distribution of *kare* 'him', and *zibun* 'self' supports Kuno's RtoO analysis as shown in (63)-(64). Kuno observes that (63) is ungrammatical, as *kare* 'him' is in the same clause as its intended antecedent. In contrast *kare* may have *Yamada* as antecedent in (64), when it is marked for nominative, because the pronoun has not raised (Kuno, 1976: 43).

- (63) Yamada<sub>i</sub> wa zibun<sub>i</sub>/\*kare<sub>i</sub> o tensai da to omotteita  
 Yamada top self/him Acc genius is Comp thought  
 'Yamada<sub>i</sub> thought himself<sub>i</sub>/him<sub>i</sub> to be a genius'

- (64) Yamada<sub>i</sub> wa zibun<sub>i</sub>/?kare<sub>i</sub> ga tensai da to omotteita  
 Yamada top self/him Nom genius is Comp thought  
 ‘Yamada<sub>i</sub> thought himself<sub>i</sub>/\*him<sub>i</sub> to be a genius’

An investigation of Sinhala data along Kuno’s proposal produces conflicting results although one expects that Sinhala would behave more in line with Japanese than with English. We have already established the finiteness of the embedded complement in Sinhala in RtoO with the properties of nominative case, tense and the overt complementizer. Kuno shows that the Japanese sentences too have the same properties. Therefore, any raising analysis has to be proposed as raising out of a finite clause as it is in Japanese. Kuno’s argument for Japanese is based on the Case distinction of the embedded subject, and all the other asymmetries stem from this central observation. However, we have already observed that the embedded complement clause to RtoO predicates in Sinhala cannot bear accusative case. I repeat (55)-(56) as (65)-(66).

- (65) Ajith visvaasa kara [Nimal kaar horakam karanava kiyala]  
 Ajith believe did [N(NOM) car(PL) steal do(PRS) COMP]  
 ‘Ajith believed that Nimal steals/is stealing cars’
- (66) \*Ajith visvaasa kara [Nimal-**va** kaar horakam karanava kiyala]  
 Ajith believe did [N(**ACC**) car(PL) steal do(PRS) COMP]  
 ‘Ajith believed that Nimal steals/is stealing cars’

The Sinhala examples produce exactly the opposite result. The sentence (65) with the nominative embedded subject is fine whereas the accusative marked (66) is ungrammatical. The same result obtains even with the higher predicate ‘think’ or ‘expect’. Nevertheless, the above ungrammaticality does not show whether

raising to object has taken place. Therefore, we need to test the above sentences with some of the diagnostics Kuno has used for Japanese, in order to see whether there is RtoO at least in the grammatical nominative marked Sinhala sentence above. Let us examine this first with adverb placement.

- (67) Mama    **aeththatama**   visvaasa   karanava   [Nimal caar-eka   horakam  
          I            **really**            believe   do(PRS)    [Nimal(**NOM**) car-DEF   steal  
          kara        kiyala]  
          do (PST)   COMP]  
          ‘I really believe that Nimal stole the car.’

- (68) Mama   visvaasa   karanava   [Nimal            **aeththatama**   kaar-eka   horakam  
          I            believe   do            [Nimal(**NOM**) **really**            car-DEF   steal  
          kara        kiyala]  
          do(PST)   COMP]  
          ‘I believe that Nimal stole the car really.’

The examples highlight that the adverb can modify the matrix verb as well as the embedded verb. Adverb placement in the embedded clause next to the embedded subject does not modify the matrix verb. This indicates that the embedded subject has not raised.

With respect to scrambling, the evidence is also similarly against raising.

- (69) \*Nimal, Mama   visvaasa   karanava   [e   caareka   horakam   kara  
          Nimal,   I            believe   do            [e   car            steal            do(PST)  
          kiyala]  
          COMP]

‘Nimal, I believe that (he) stole the car.’

Since the reordering of constituents applies to the constituents of the same clause, (69) shows that Nimal has not raised to the higher clause.

Examples (70)-(71) illustrate the raising facts with respect to the distribution of reflexives and pronominals in Sinhala. As in English, reflexives are obligatorily bound and c- commanded by the antecedent, while a pronominal is free in its GC.

(70) Nimal<sub>i</sub> [taman<sub>i</sub>/\*eyaa<sub>i</sub> viiray ek kiyala] hithuwa  
Nimal<sub>i</sub> [self<sub>i</sub>/\*he<sub>i</sub>(NOM) hero INDF COMP] thought  
‘Nimal thought self was a hero’

(71) Nimal<sub>i</sub> [taman<sub>i</sub>/\*eyaa-**va**<sub>i</sub> viirayek kiyala] hithuwa  
Nimal<sub>i</sub> [self<sub>i</sub>/\*he<sub>i</sub>-ACC hero-INDF COMP] thought  
‘Nimal thought self was a hero’

The ungrammaticality of the accusative pronoun in (71) indicates that the pronoun has raised to the higher clause and therefore co-indexation with the antecedent is not possible (as it was the case in Japanese). But it leaves the nominative marked (70) unexplained, as this too is ungrammatical with the given co-indexation.

In fact, the issue here is not raising vs. non-raising, but rather the impossibility of having accusative embedded subjects, as we noted in (66). Thus, with regard to raising of the embedded subject, once again we conclude that there is no raising to object as noted in the previous diagnostics (adverb placement and scrambling).

#### 5.4.4 The Kariyakarawana Analysis of ECM and the Sinhala Facts

Kariyakarawana (1998) claims that Sinhala allows exceptional case marking (ECM), and, that this possibility is limited only to [+V] small clauses. Briefly his argument runs as follows. He classifies Sinhala clauses into two types— verbal and non-verbal— on the basis of the nature of the predicate. The verbal type requires a verbal predicate as in (72), while the non-verbal type has nominal, adverbial, adjectival, or locative predicates (73). He calls the verbal type [+v] clauses while the non-verbal, [-v] clauses (Kariyakarawana 1998: 52).

- (72)    Seena    mahattaya            gedara    giya  
          Sena    gentleman(NOM) home    go(PST)  
          ‘Mr Sena went home’

- (73)    Seena    mahattaya            guruwaray-ek  
          Sena    gentleman(NOM) teacher-INDF  
          ‘Mr Sena is a teacher’

Kariyakarawana observes that [+v] predicate sentences can be embedded as small clauses of a predicate such as ‘know’ (74), whereas [-v] predicated small clauses cannot be so embedded (75) (Kariyakarawana 1998: 58: 24 (a, b).

- (74)    Mama [Gunapala (va) aava] dannava  
          I           [Gunapala (ACC) came] know  
          ‘I know Gunapala came’

- (75)    \*Mama [Gunapala (va) guruvarayek] dannava  
          I           [Gunapala (ACC) teacher-INDF] know  
          ‘I know Gunapala to be a teacher’



Kariyakarawana extends the analysis to ECM and claims that the subject of [+v] small clause sentences can be exceptionally case marked by the higher predicate (76), while the subjects of [-v] small clause sentences cannot be so case marked (77). He attributes this to a structural asymmetry claiming that the predicates such as ‘know’ in Sinhala subcategorize for PredicatePs, but not for full TPs, and the subjects of [+v] predicates are subject to ECM. Also he argues that the subjects of [+v] predicates are inner subjects generated in [Spec, Pred], whereas the subjects of [-v] predicates are outer subjects generated outside the theta domain of the verb in [Spec, TP].

In 5.4.2, I argued that Sinhala does not display ECM, as the C° position is overtly filled. Kariyakarawana provides the following example to claim that the subject of the embedded small clause is case marked by the higher verb: (Kariyakarawana 1998: 58, 24 a)

- (76) Mama [Gunapala-va aava] dannava  
       I       [Gunapala-ACC came] know  
       ‘I know Gunapala came’

Even if we assume that the accusative case internal to the clause is optional/register variation/PF deletion, still there is no motivation for ECM. According to my interpretive judgment (and that of a number of other native speakers), the embedded subject cannot bear accusative. This is true in other cases too, e.g., (77) and (78).

- (77) \*Mama [Gunapala-va aava] visvaasa kara  
       I       [Gunapala-ACC came] believe did  
       ‘I believed Gunapala came’

- (78) \*Mama [Gunapala-va aava] hithuwa/ balaporothisu una  
 I [Gunapala-ACC came] thought/ expect did  
 'I thought/expected Gunapala came'

The ungrammaticality of the sentences suggests that ECM is not at issue in (76). Further, these clauses have finite verbs and they are TPs, and do not warrant a small clause analysis. In fact, the same example (76) is fine with the nominative and higher predicate *dakinava* (to see), which is not an ECM predicate (79)-(80).

- (79) Mama [Gunapala aava] daekka  
 I [Gunapala(NOM) come(PST)] saw  
 'I saw Gunapala came'

- (80) Mama [Gunapala enava] daekka  
 I [Gunapala(NOM) come(PRS)] saw  
 'I saw Gunapala coming'

Rather than ECM, what is of concern here is the type of matrix predicates: 'to see' is a verb of attention/direct perception. It has a deictic feature. It can c- select a complement without the overt complementizer in the frame 'I [Gunapala eat/drink/play...etc] saw'. It reports direct observation. There is no restriction in the embedded verb type in this case. Similarly, *dannava* 'know' also has special properties. Noonan (2007) classifies predicates such as *know*, *discover*, *realize*, *find out*, *forget*, *see*, and *hear* as predicates of knowledge and acquisition of knowledge (KAK). He shows that the predicate 'see' can occur in two senses: (i) as a predicate of KAK, as in 'I saw that Floid left', and (ii) in immediate perception sense, as in 'I saw Floid leave' (Noonan 2007: 129: 346, 347). The examples I have given above (79-80) belong to the category of immediate perception sense, and

therefore, they do not take the complementizer. However, they do not warrant a small clause analysis either.

Similarly, the predicate ‘know’ has unique properties other than being a raising predicate. Noonan observes that unlike other predicates of KAK, *know* makes no assertion about the manner of acquisition, only the fact of knowledge; “As a result, its complements typically represent backgrounded material like commentatives. In addition to the fact of knowledge, however, ‘know’ also asserts a positive propositional attitude towards its complement, like *believe*” (Noonan: 130). Therefore, the example (76) repeated below as (81) which Kariyakarawana has provided for the ECM analysis of the small clause, does not reflect ECM properties, but rather the absence of the complementizer is due to the special properties of the predicate ‘know’.

- (81) Mama [Gunapala \*va aava] dannava  
 I [Gunapala \*ACC came] know  
 ‘I know Gunapala came’

As for Kariyakarawana’s distinction of verbal and non-verbal clauses, Sinhala displays this distinction as attested by Paolillo (1999), Gair, Lust, Sumangala, and Rodrigo (1989), Henadeerage (2002). Of his small clause analysis of verbal and non-verbal clauses, the non-verbal clauses qualify for this claim, though they may follow a different analysis. As attested by the above authors, (82) is a non-verbal clause (Kariyakarawana 1998: 52: 1).

- (82) Seenā mahattaya guruwarayek  
 Sena gentleman(NOM) teacher-INDF  
 ‘Mr Sena is a teacher’

Since the sentence is verbless, as it consists of only two juxtaposed NPs, it can be called a small clause. However, embedding it in ‘know’, as in (83), leads to ungrammaticality.

- (83) \*Mama [Seena mahattaya guruwarayek] dannava  
 I [Sena gentleman(NOM) teacher-INDF] know  
 ‘I know Mr. Sena is a teacher’

Kariyakarawana attributes the ungrammaticality of (83) to the higher predicate’s inability to exceptionally case mark in this case, since the embedded clause is [-V], and therefore, is not a full TP. Once again, the ‘small-clause’ nature and the lack of ‘full TP’ status are questionable. Though the embedded clause lacks a copula, still it can independently function as a proposition, and therefore, is a propositional structure. It is evident that the subject NP receives its theta role from the predicative NP ‘a teacher’. Though the sentence lacks a copula, there is agreement between the juxtaposed two NPs, as shown in the contrast below.

- (84) Eya vaduw-ek  
 He carpenter-INDF  
 ‘He is a carpenter’

- (85) Eyaa-la vadu-vo  
 He-PL carpenter-PL  
 ‘They are carpenters’

The examples illustrate the presence of an Agr projection that assigns the subject nominative. Therefore, the embedded subject does not need accusative from the higher predicate, thereby ruling out Kariyakarawana's claim for ECM. Also, these examples are quite different from the English small clause in 'I consider [the taxi driver innocent]' in which the embedded small clause is not a full proposition. Hence, the ungrammaticality of (83) can be accounted for with respect to selectional requirements. The higher predicate *c-* selects a CP, and the sentence improves with the overt complementizer, as shown in (86).

- (86) Mama [Seena mahattaya guruwarayek **kiyala/bava**] dannava  
 I [Sena gentleman(NOM) teacher-indf **COMP**] know  
 'I know that Mr. Sena is a teacher'

Based on the above syntactic evidence, I conclude that the ECM analysis of small clauses by Kariyakarawana is incorrect. Further, I conclude that Sinhala does not have ECM or raising to object.

## 5.5 Conclusion

This chapter examined the raising complements of Sinhala. The focus was on *vage*, which we considered as the correlate of *seem*, the English raising predicate. The empirical facts revealed that *vage* is not a raising predicate, and, therefore, it warranted a different analysis. On the basis of syntactic and semantic evidence, we argued that *vage* is an epistemic modal marker lexicalized in the language just like the other modal particles. Some of our major conclusions in the chapter are, that, the complements to ECM predicates are finite, and that Sinhala does not exhibit raising to object or ECM. We showed that certain theoretical constructs as

raising to object and ECM that are anchored in the syntactic theory are not empirically adequate, as the Sinhala facts highlight.

## **CHAPTER 6**

### **CONTROL COMPLEMENTS**

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This chapter investigates the control phenomena in Sinhala. Section 1 briefly traces the evolution of a control theory. Section 2 presents the empirical facts of Sinhala subject control which includes obligatory control types. 6.3 presents an analysis of Sinhala obligatory control. This section also covers landmarks in the theory of control, followed by my own proposal for Sinhala obligatory control analysis. In 6.4, I discuss optional control, and in 6.5, arbitrary control. Section 6.6 discusses adjunct control in Sinhala, and, a brief chapter conclusion is presented in 6.7.

#### **6.1 Introduction**

Early Transformational Grammar approaches derived control constructions through transformational rules, notably through the Equivalent Noun Phrase Deletion (Equi NP Deletion) transformation-, by which a co-referent subject of the D-structure embedded complement clause is deleted in the course of the derivation in order to obtain the desired S-structure. Different analyses used different transformations such as complementizer insertion, complementizer deletion, or simply, only Equi Deletion. The emergence of GB with its modular structure ensured that control receive special attention as a separate module called Control Theory.

Further, the other modules of GB such as theta theory, empty categories, projection principle (PP) and the extended projection principle (EPP) provided the conceptual rationale for PRO's anchoring in the structure as well as in grammatical theory.

PRO was argued to be indispensable in the structure and a clear line of distinction emerged between control and raising. The properties of PRO were distinct from other empty categories as it was in part like an NP trace and in part, not. It behaved like an anaphor in obligatory control, and was bound in its governing category (GC) and behaved like a pronominal in optional control, and was free in its GC. This contradiction led to the PRO Theorem which stated PRO must occur in only ungoverned positions. Therefore, PRO's distribution was limited to the subject position of infinitival complements as this was the only structural position that PRO could occur without being governed. Hence, a construction with PRO should have the following structure, with the maximal projection S' blocking government of PRO by the lexical head *try*.

(1) They tried [<sub>S'</sub> [<sub>S</sub> PRO to attack the harbor]]

GB theory maintains a clear line of distinction between raising and control, as required by their interaction with other modules and sub-modules. The vast body of empirical studies on the subject that ensued reflected the theoretical shifts that took place over the time; in particular, in the move towards a unitary analysis for raising and control, doing away with the control theory altogether. Chomsky and Lasnik's (1993) proposal of Null Case for PRO is one such attempt to do away with a control theory. Based on the distribution of PRO, they argue that PRO is a case-marked category which moves out of a caseless position (such as object of a passive) to receive case, and cannot move out of a position where it can receive case (such as object of a preposition). They propose that PRO is assigned null case and the only position where PRO is licensed is the [Spec, T] of an infinitival clause.



There exist, however, proposals (Hornstein 1999, Landau 2000, 2004) that challenge both the GB conception of PRO as well as the null case approach, proposing instead, a raising analysis of PRO. The more recent minimalist literature captures the distinction between raising and control in terms of defective and non-defective clauses respectively. C is the determining factor as control clauses are headed by C, and raising clauses are headed by T.

Although there is no clear consensus among linguists about the exact number and types of control, and also there is much overlap in these notions, a general typology of control would include the following: Obligatory and non-obligatory (optional) control, based on the type of relation between the controller and the PRO subject. Each type attests further subtypes as obligatory subject control and obligatory object control. In the non-obligatory control type, the PRO subject need not be controlled by a clause-mate DP which results in the subtype long distance control: Or it may be the case that the controller is altogether absent, resulting in the subtype arbitrary control.

Landau (1999) notes that the relation between PRO and the controller is not always one of identity: that is, PRO and the controller may not always have the same referent. This has led to the identification of further subtypes of obligatory control such as exhaustive control and partial control. According to his analysis, when PRO is referentially identical to the controller as in (2), this results in exhaustive control. On the other hand, when the controller is merely referentially included in the set denoted to by PRO, that is, when PRO include the controller and not the other way round, this is identified as partial control (3) (Landau: 1999, 8a, 9a).

- (2) The chair<sub>i</sub> managed [PRO<sub>i</sub> to gather the committee at 6] (EC)
- (3) The chair<sub>i</sub> preferred [PRO<sub>i</sub> to gather at 6] (PC)

Further, a cross linguistic survey would attest further subtypes as finite control, optional subject control etc. as we will see later. The literature on control uses a number of diagnostics to distinguish between obligatory-optional control. Some of these are:

- a) Obligatory control (OC) PRO must have an antecedent
  - (4) Nimal<sub>i</sub> tried [PRO<sub>i</sub> to sell his car]
  - (5) \*It was expected to behave himself
- b) This antecedent must be local
  - (6) \*Nimal<sub>i</sub> thinks that it was expected PRO<sub>i</sub> to behave himself
- c) It must c-command PRO
  - (7) [Nimal<sub>i</sub>'s parents]<sub>j</sub> tried PRO<sub>i/j</sub> to please Ajith
- d) OC PRO only permits a sloppy interpretation under ellipsis
  - (8) \*Nimal expects PRO to win and Ajith does too (Ajith win)
- e) OC PRO cannot have split antecedents
  - (9) Nimal<sub>i</sub> told Ajith<sub>j</sub> PRO<sub>i/j</sub> to wash themselves

Investigation of control complements in Sinhala constitutes a major area of the proposed study. This entails an examination of the control predicate types, different control types and the resulting complement clause, the interpretation of PRO as well as the special properties displayed by Sinhala control constructions.

The following section provides a brief introduction to control phenomena in Sinhala and the facts that my analysis must account for.

## 6.2 Sinhala Subject Control: The Empirical Facts

Sinhala allows empty categories in all argument positions: subject and object, which Gair (2005) calls super *pro* drop. This characteristic is illustrated in the following dialogue example.

- (10) A: Oyaa-ge kaareka-ta moka-da une?  
 You-GEN car-DAT what-Q happened-E  
 ‘What happened to your car?’

- (11) B: Ø Ø vkinuwa  
 I it sold  
 ‘I sold it.’

The same phenomenon is evident in the complex sentences too, as shown in (12).

- (12) Mama Ø balanako-ta Ø gihilla  
 I he(ACC) see-DAT he(NOM) gone  
 ‘When I was looking for him, he had gone’

The interpretation of *pro* in the examples is contextually determined. The sentence can also mean ‘when I was looking **that side**, he had gone’. Nevertheless, both the distribution and interpretation of *pro* is grammatically constrained. For example, an empty pronoun cannot co-refer with its antecedent, if it c-commands it, as in (13).

- (13)  $\emptyset_{i/j}$  Nimal-ge<sub>i</sub> kaareka-ta kaemathi  
 $\emptyset$  Nimal-GEN car-DAT like  
 'He<sub>i/j</sub> likes Nimali's car'

Similarly co-reference with a c-commanding antecedent in a local domain is not possible with a co-referential interpretation, as shown in (14).

- (14) Nimal<sub>i</sub>  $\emptyset_{i/j}$  kannadi-y-en daekka  
 Nimal  $\emptyset$  mirror-LOC-INS saw  
 'Nimal<sub>i</sub> saw him<sub>j</sub>/\*himself<sub>i</sub> in the mirror'

The interpretation of (14) is that Nimal saw somebody else in the mirror and the null pronoun cannot refer to Nimal himself.

The distribution of PRO in Sinhala can be discussed with respect to complement clauses and adjunct clauses. Let us begin the discussion by examining the complement clauses first.

### 6.2.1 Obligatory Control

This section discusses the properties of obligatory control. The objective is to determine:

- a) The nature of the empty category in embedded subject of infinitival contexts,
- b) Whether it obeys the diagnostics of control, and,
- c) Whether the reference of this category is controlled by an argument in the higher clause.

We will use (a) lexical subject, (b) c-command, (c) split antecedents, and (d) temporal adverb placement as some of our diagnostics.

### 6.2.1.1 Subject Control

Examples (15)–(18) illustrate some properties of obligatory subject control in Sinhala: Examples (15) and (16) show that, with the predicate *utsaaha karanava* ‘try’, PRO is obligatory and a lexical DP cannot replace PRO. Example (17) indicates that PRO cannot have split antecedents. Example (18) indicates the c-command requirement of the null argument.

- (15) Mamai [PRO<sub>i</sub> kaareka soodanna] utsaaha kara  
I [PRO car wash(INF)] try did  
‘I tried to wash the car.’
- (16) \*Mama [Nimal kaareka soodanna] utsaaha kara  
I [Nimal car wash(INF)] try did  
‘I tried to wash the car.’
- (17) Sunil<sub>j</sub> Nimal-ta<sub>i</sub> [PRO\*<sub>i+j</sub> kaareka soodanna] kiuwa  
Sunil Nimal-DAT [PRO car wash(INF)] said  
‘Sunil asked Nimal to wash the car’
- (18) \*Nimalge<sub>i</sub> amma<sub>j</sub> [PRO<sub>i</sub> daruva(va) balanna] aava  
Nimal-GEN mother [PRO child (ACC) see (INF)] came  
‘Nimal’s mother came to see the child’

Another significant property of this control construction is the impossibility of a temporal adverb placement that is different from matrix tense, i.e., the embedded clause cannot have a time reference independent of that of the matrix clause. At the moment of trying, the car must be unwashed; hence, the embedded tense is unrealized with respect to the matrix one.

(19) \*Mama<sub>i</sub> [PRO<sub>i</sub> **heta** kaareka soodanna] utsaaha kara  
 I [PRO **tomorrow** car wash(INF)] try did  
 'I tried to wash the car tomorrow'

(20) \*Mama<sub>i</sub> [PRO<sub>i</sub> kaareka soodanna] **heta** utsaaha kara  
 I [PRO car wash(INF)] **tomorrow** try did  
 'I tried to wash the car tomorrow'

Another property of this control clause is that it does not allow the complementizer *kiyala*, (21).

(21) \*Mama<sub>i</sub> [PRO<sub>i</sub> kaareka soodanna *kiyala*] utsaaha kara  
 I [PRO car wash(INF) COMP] try did  
 'I tried to wash the car.'

Some predicates in Sinhala subcategorize for an obligatory PRO complement with an optional *kiyala* complementizer. We noticed in Chapter 2 that the *bava* complementizer cannot occur with infinitive predicates. Further, adverb placement suggests that the embedded clause has a tense operator despite infinitive nature of the verb. This indicates that the control clause is not anaphoric in temporal properties to the matrix clause. Since the *bava* complementizer that we analyzed as Fin is ruled out in control constructions, the tense operator must be located in T. Also, when contrasted with the above predicates that showed ambiguity with respect to the two tenses, the difference here is purely due to a property of the selecting predicate.

- (22) Mama [PRO heta kaareka vikunanna (**kiyala**)]  
 I [PRO tomorrow car sell(INF) (**COMP**)]  
 ada thiiranaya kara  
 today decide did  
 'I decided today to sell the car tomorrow.'

The predicates that allow such different temporal properties in the control clause are '*decide, determine, think, expect*', etc.

Sinhala attests control into a finite complement with an obligatory *kiyala* complementizer (23). Example (24) shows that (23) is grammatical with distinct temporal adverbs.

- (23) Mama<sub>i</sub> [PRO<sub>i</sub> kaar-eka vikunanava kiyala] thiiranaya kara  
 I [PRO car-one sell(PRS) COMP] decide did  
 'I decided that (I) will sell the car'

- (24) Mama<sub>i</sub> [PRO<sub>i</sub> heta kaar-eka vikunanava kiyala]  
 I [PRO tomorrow car-one sell(PRS) COMP]  
 ada thiiranaya kara  
 today decide did  
 'I decided today that (I) will sell the car tomorrow'

Nevertheless, despite the finiteness of the complement and the *kiyala* complementizer, (23) and (24) are still control constructions; as by our diagnostics, (25)-(27) indicate, lexical subjects and split antecedents are disallowed, and the c-command holds:-

- (25) Mama [PRO \*Nimal heta kaareka vikunanava kiyala]  
 I [PRO \*Nimal tomorrow car sell(PRS) COMP]  
 ada thiiranaya kara  
 today decide did  
 'I decided today that I, \*Nimal will sell the car tomorrow.'
- (26) \*Mama<sub>i</sub> Nimalta<sub>j</sub> [PRO<sub>i/j</sub> heta kaareka vikunanava kiyala]  
 I Nimal-DAT [PRO tomorrow car sell(PRS) COMP]  
 kiuwa  
 told  
 'I told Nimal that I will sell the car tomorrow.'
- (27) \*Nimali-ge amma<sub>j</sub> [PRO<sub>i</sub> heta kaareka vikunanava kiyala]  
 Nimal-GEN mother [PRO tomorrow car sell(PRS) COMP]  
 kiuwa  
 said  
 'Nimal's mother said that she will sell the car tomorrow.'

Also note that despite the finite verb and obligatory *kiyala*, the complement has a future interpretation, as a past tense embedded predicate is not allowed (28).

- (28) \*Mama<sub>i</sub> [PRO<sub>i</sub> kaar-eka viki<sub>nuwa</sub> kiyala] thiiranaya kara  
 I [PRO car-one sell(PST) COMP] decide did  
 'I decided that (I) sold the car'

The control examples we have examined so far fall into the following three types.

- (29) a) Those that do not take temporal adverbs and/or the *kiyala* complementizer.



- b) Those that take infinitive complements with optional *kiyala* complementizer.
- c) Those that take finite complements with an obligatory *kiyala* complementizer.

Recall that all three types pass our diagnostics for control. Nevertheless, these three types indicate a clear distinction in terms of adverb placement and occurrence with the *kiyala* complementizer, along the following lines.

- (30) a) The control complements that do not allow distinct temporal adverbs also do not allow *kiyala* complementizer—group (a)
- b) The control complements that allow distinct temporal adverbs also allow *kiyala* complementizer—group (b) and (c).

Since both the above are PRO structures, we cannot ignore this difference. However, before we attempt an explanation, let us first examine other obligatory control types.

#### **6.2.1.2 Object Control**

The Sinhala object control construction differs from that of English in that the object controller in Sinhala is often in the dative. This is evident with almost all the object control predicates, *tell, order, persuade, encourage, allow, instruct* etc, (31). Almost all these predicates allow optional *kiyala*. Further, the c-command is obligatory, and, PRO cannot have split antecedents.

- (31) Nimal Ajith- tai [PRO<sub>i</sub> vaadivenna (kiyala)] idadunna  
 Nimal Ajith DAT [PRO sit (INF) (COMP)] allowed  
 'Nimal allowed Ajith to sit'

With the predicate *encourage*, the controller might appear in accusative as well, indicating that dative case marking of the controller is not exclusive (32).

- (32) Nimal Ajith- vai [PRO<sub>i</sub> honda-ta vaedakaranna  
 Nimal Ajith-ACC [PRO well-DAT work(INF)  
 (kiyala)] dhairyamath karaa  
 (COMP)] encourage did  
 'Nimal encouraged Ajith to work well'

Some object control predicates allow different temporal adverbs (33), thereby showing the presence of a tense operator in the embedded clause distinct from the matrix tense. Further, complementizer *kiyala* can optionally occur with these temporal adverbs, as (33) indicates.

- (33) Mama ada Ajith- tai [heta PRO<sub>i</sub> rae kaema-ta enna  
 I today Ajith-DAT [tomorrow PRO night food-DAT come(INF)  
 (kiyala)] kiuwa  
 (COMP)] said  
 'I asked Ajith today to come for dinner tomorrow'

Predicates such as *persuade*, *order*, *tell*, *arrange*, and *encourage* are examples for such higher predicates that allow a different temporal adverb in the embedded clause. Modification of the two verbs with two different adverbs does not create a contradiction. Therefore, the embedded clause is [+Tense].

However, object control into a finite clause is not possible (34), suggesting that c-selectional properties of the selecting predicate play an important role.

- (34) \*Nimal Ajith-tai [PRO<sub>i</sub> rae kaema-ta **enava** kiyala] balakala  
 Nimal Ajith-DAT [PRO night food-DAT **come(PRS)** COMP] forced  
 'Nimal forced Ajith to come for dinner.'

Even scrambling of the object DP does not improve the sentence (35)

- (35) \*Ajith-tai Nimal balakala, [PRO<sub>i</sub> rae kaema-ta **enava** kiyala]  
 Ajith-DAT Nimal forced [PRO night food-DAT **come(PRS)** COMP]  
 'Nimal forced Ajith to come for dinner.'

Our examination of the object control constructions so far indicates a clear distinction in terms of the finiteness properties of the embedded predicate, and therefore, can be ordered along the following lines.

- (36) a) Infinitive complements that allow different temporal adverbs and optional *kiyala*.  
 b) Control complements that do not allow a finite predicate and *kiyala*.

(36) indicates that, despite their object control nature, they pattern more with the subject control type (29, b), that selects only an infinitive complement, allow temporal adverbs, and also allow optional *kiyala*.

### 6.2.1.3 Partial Control

Sinhala shows partial control along the lines of Landau (2004), as in (37). The example also indicates that the complementizer can optionally occur. The presence/absence of tense can be tested with temporal adverbs modifying the

two clauses and creating a tense mismatch (38). Also, a lexical subject cannot occupy PRO's position (39).

(37) Kamituwa<sub>i</sub> [PRO<sub>i+</sub> haya-ta raes-vennna (kiyala)] thiiranaya kara  
 Committee [PRO six-DAT gather-be(INF) (COMP)] decide did  
 'The committee decided to gather at six'

(38) Kamituwa<sub>i</sub> [PRO<sub>i+</sub> heta haya-ta raes-vennna]  
 Committee [PRO tomorrow six-DAT gather-be(INF)]  
 ada thiiranaya kara  
 today decide did  
 'The committee decided today to gather at six tomorrow'

(39) Kamituwa<sub>i</sub> [\*Nimal PRO<sub>i+</sub> haya-ta raes-vennna (kiyala)]  
 Committee [Nimal PRO six-DAT gather-be(INF) (COMP)]  
 thiiranaya kara  
 decide did  
 'The committee decided to gather at six'

Now that we have noticed the presence of the tense operator in the embedded clause, we should also see whether there is agreement as well. Since Sinhala does not show phi-feature agreement in general, this task is rather difficult. Nevertheless, Sinhala shows person and number agreement between a first person plural subject and a hortative verb as in (40).

- (40) Api<sub>i</sub> [PRO<sub>i</sub> heta haya-ta raes-vemu kiyala] ada  
 We [PRO tomorrow six-DAT gather-be(hortative, PL) COMP] today  
 thiiranaya kara  
 decide did  
 'We decided today that (we) will gather at six tomorrow.'

Example (40) indicates that the embedded complement is finite, and has tense and agreement as well. Extending the same to a morphologically singular subject such as *the committee*, we notice that the above observations hold (41). Note that (41) is a finite partial control construction, as indicated by the obligatoriness of the *kiyala* complementizer (42). Also note that, despite these finiteness properties, the complement has a future orientation, as a past tense embedded predicate makes the sentence ungrammatical (43).

- (41) kamituwai<sub>i</sub> [PRO<sub>i</sub> heta haya-ta raes-vemu kiyala]  
 Committee [PRO tomorrow six-DAT gather-be(hortative, PL) COMP]  
 ada thiiranaya kara  
 today decide did  
 'The committee decided today that (they) will gather at six tomorrow.'

- (42) \*kamituwai<sub>i</sub> [PRO<sub>i</sub> heta haya-ta raes-vemu]  
 Committee [PRO tomorrow six-DAT gather-be(hortative, PL)]  
 thiiranaya-kara  
 decide-did  
 'The committee decided (they) gather at six tomorrow.'

- (43) \*kamituwai [PRO<sub>i</sub>+ heta        haya-ta raes-una kiyala]    thiiranaya kara  
 Committee [PRO tomorrow six-DAT gather(PST) COMP] decide        did  
 'The committee decided that they met at 6 tomorrow'

Sinhala is however, not typologically unusual, as Watanabe (1993) reports that French and Italian use lexical complementizers in control constructions. He offers the following examples with object and subject control structures respectively (with complementizer boldfaced) (Watanabe: 63, 2.6, 2.7).

- (44) a. Je lui ai dit [**de** PRO partir] (Fr)  
 b. Gli ho detto [**di** PRO partire] (It)  
 'I told him to leave'
- (45) a. Jean a essaye/oublie/decide [**de** PRO partir] (Fr)  
 b. Gianni ha tentato/dimenticato/deciso [**di** PRO partire] (It)  
 'John tried/forgot/decided to leave'

Thus, like French and Italian, Sinhala has an overtly filled C in the control structure. A further contrast with Italian and French arises with respect to the object control construction. As the Italian and French examples denote, object control with an overt complementizer is possible in these languages. But in Sinhala, the complementizer is optional (31)-(33).

Where it departs from French and Italian is that, in subject control, Sinhala allows for a finite embedded predicate and an obligatory complementizer (23), (24). When the complementizer is optional, the embedded predicate is in the infinitive. Therefore, we notice a strong C-V connection, based on the [+Finite] feature of the embedded predicate. Nevertheless, it is the properties of the higher

predicate that determine this overall embedded complement selection, with or without a finite verb+complementizer *kiyala*.

Our investigation into Sinhala obligatory control so far has revealed 4 types of control complements exhibiting a number of properties, of which, only type (a) does not allow temporal adverbs.

- (46)
- a) Those that do not take temporal adverbs and/or the *kiyala* complementizer.
  - b) Those that take infinitive complements with an optional *kiyala* complementizer.
  - c) Those that take finite complements with obligatory *kiyala* complementizer.
  - d) Those that take finite complements with obligatory *kiyala* complementizer and show phi-feature agreement with a hortative verb.

Also recall that all these control types have a future orientation/interpretation. Hence, the question at hand is whether we can find an analysis that can incorporate all these control types: I attempt to do so over the next sections.

### **6.3 An Analysis of Sinhala Obligatory Control**

#### **6.3.1 Previous Analyses; Gair (2005)**

Gair (2005) argues that the control properties of Sinhala are determined by the higher predicate and the relation between the complement clause and the matrix clause, rather than by the (non)finiteness of the embedded predicate. Since lexical subjects can appear in the infinitival [Spec, T], as in (47)-(49), Gair claims that the occurrence of PRO also must be attributed to the properties of the higher predicate and the higher clause (Gair: 125-127).

- (47) [Mama enna issella] miniha kaareka vikka  
 [I come(INF) before] man car sold  
 'The fellow sold the car before I came'
- (48) Kaatahari kaapu gamang, [kauruwath nohoyanda] sarpayo  
 Someone bite-PST-REL when, [anyone-NOM NEG-find-INF] serpent-PL  
 kohehari haengenava, nee  
 somewhere hide- PRS, TAG  
 'When serpents have bitten someone, they hide so that no one can find them, don't they?'
- (49) Vedamahattaya enna thava paeya deka thiyenava  
 Physician come-INF still hour two-INDF be (inan)- PRS  
 'There are still two hours for the (traditional) doctor to come'

Gair supports this argument with *kaemathi* (like), *puluwan* (can, possible) and *oona* (want, must) which he calls (pre-theoretically) modals. Of these, *kaemathi* 'like' behaves like a typical subject control predicate. He shows that '*puluwan*' 'can', and *oona* 'want' can take two subjects, a dative and a nominative, but, correspond to two different structures (50)-(53), in analogy with (54). Examples (50) and (52) indicate PRO structures with dative subjects, while (51) and (53) are predicational relational structures with nominative subjects. In (54), the embedded verb, *theerenava* 'understand' which is a 'dative subject verb', selects the dative subject, and therefore the clause is a full TP predicated of the modal (Gair: 129-131).



- (50) **Matai** [ $\emptyset_{i/r}$  ee vaeda karanna] puluwani  
**I(DAT)** [ that work do (INF)] can  
 ‘I **can** do that work’
- (51) [**Mama** ee vaeda karanna] puluwani  
**I(NOM)** that work do (INF) can  
 ‘I **might** do that work’
- (52) **Matai** [ $\emptyset_i$  heta kolamba yanna] oona  
**I (DAT)** [ tomorrow Colombo go(INF)] want  
 ‘I **want** to go to Colombo tomorrow’
- (53) [**Mama** heta kolomba yanna] oona  
**I(NOM)** tomorrow Colombo go(INF)] want  
 ‘I **must** go to Colombo tomorrow’
- (54) [Mee lameyata iita passe theerenna] puluwani  
 This child-DAT that-DAT after understand-INF might-ASSM  
 ‘This child might understand after that’

Thus, two subjects can occur in infinitive environments: one is the PRO subject, and the other is a lexical subject/pro. Gair denotes the distinction as, when there is co-indexation and c-command, the embedded subject must be PRO; when there is no such relation, the embedded subject must be *pro*.

Gair’s observation that infinitive complements can take lexical subjects in certain clause types—*issella*, (before), *gamang* (while)—is uncontroversial, as Sinhala provides evidence for the same including the imperative (which too uses the infinitive verb form). Gair’s observation for the *pro*/PRO distinction is largely

based on the distribution of the three predicates- *want*, *can*, *like*. In fact, these three predicates have distinct as well as some common properties. As for the common properties, all three do not inflect for tense, aspect or agreement, i.e., inflectionally, they behave like modals. Whereas these modal predicates occur with a dative subject conveying root modal interpretation, a lexical predicate cannot, as shown in the contrast (55)-(56).

(55) Mata     apple    kannu    aasai/oonu/puluwan  
       I DAT    apple    eat(INF) like/want/can  
       'I like to/want to/can eat apples'

(56) \*Mata    apple    kannu    utsaaha    kara  
       I DAT    apple    eat(INF) try            did  
       'I tried to eat apples'

As for the distinct properties, '*like*' can be considered as a typical subject control predicate as Gair has noted. Both *puluwan* (*can*) and *oonu* (*want*) allow either a dative or a nominative subject with different interpretations. Gair treats the *can* and *want* with a dative subject as root modals, and with a nominative subject, as epistemic modals. Similarly, he analyzes the root modal as a dyadic predicate, and the epistemic, as a monadic one. Hence, the root modal takes two arguments, of which one is the PRO subject. His analysis of the monadic structure as an epistemic one shows that the whole proposition is predicated of the epistemic modal.

An examination of the distribution of the infinitive predicate in Sinhala shows that it can occur in the following limited environments (apart from control structures).

- a) As a complex predicate with a light verb (go/come) (57)

(57) Mata      aedenna      aava  
 I-DAT      cry(invol)      came  
 'Crying came to me' (I could not control myself and I was going to cry unknowingly)

- b) With the root modal *puluwan* (can) suggesting ability

(58) Mata      natanna      puluwan  
 I-DAT      dance(INF)      can  
 'I can dance'

- c) Only with a dative subject- (57) and (58) above.

Returning to Gair, the paragraphs that follow show that Gair's analysis of modals as control structures is inadequate. Note first that the 'issella' (before) context and the modal context differ from each other in,

- a) subject selection
- b) embedding predicate
- c) complementizer selection

Examples (59)-(62) illustrate these differences. In (59) the *issella* (before) construction with a dative subject is ungrammatical. This indicates that a dative subject is selected by a modal and not by a lexical predicate like '*vikka*' (sold).

(59) [Mama/ \*mata enna              issella]    miniha    kaareka    vikka  
 [I(NOM)/ \*I-DAT come(INF) before]    man      car          sold  
 'The fellow sold the car before I came'  
 '\*The fellow sold the car before me came'

In (60) a PRO construction with a dative matrix subject selected by the lexical predicate '*decide*' is ungrammatical. As in (59), this indicates that a lexical predicate does not select a dative subject even with a control complement.

- (60) Mama/ \*mata [PRO kaareka vikunanna] thiiranaya kara  
 I(NOM)/ \*I-DAT [PRO car sell(INF)] decide did  
 'I decided to sell the car.'  
 '\*Me decided to sell the car'

In (61), a modal predicate can select either a dative/nominative/*pro* subject. However, an overt complementizer (*kiyala*) makes the sentence ungrammatical as shown in (62).

- (61) Mama/ mata/pro kaareka vikunanna aasai/ puluwan/oona  
 I(NOM)/ I-DAT/pro car sell(INF) like/ can/ want  
 'I/me like/can/want to sell the car.'
- (62) \*Mama/ mata kaareka vikunanna **kiyala** aasai/ puluwan/oona  
 I(NOM)/ I-DAT car sell(INF) **COMP** like/ can/ want  
 'I/me like/can/want to sell the car.'

In (63) an optional complementizer is allowed when the selecting predicate is lexical and not modal.

- (63) Mama [PRO kaareka vikunanna (**kiyala**)] thiiranaya kara  
 I [PRO car sell(INF) (**COMP**)] decide did  
 'I decided to sell the car.'

Modals and lexical predicates thus have distinct selectional properties. Although, in Gair's analysis, they share one common property, and that is the selection of a

PRO complement, this claim turns out to be problematic in the light of these differences. Consider (64) and (65), repeated from (52)-(53) above.

(64) Matai [Ø<sub>i</sub> heta kolamba yanna] oona/ puluwan  
 I(DAT) [ tomorrow Colombo go(INF)] want/ can  
 'I want to/can go to Colombo tomorrow'

(65) [Mama heta kolomba yanna] oona/ puluwan  
 [I(NOM) tomorrow Colombo go(INF)] want/ can  
 'I must/can go to Colombo tomorrow'

If (64) with the dative subject was in fact a control structure, then it should share this property with lexical predicates as well. But none of the lexical predicates in Sinhala allow a dative subject in a control construction<sup>1</sup>

On the other hand, most of the lexical predicates optionally take the *kiyala* complementizer in the control complement. But the modals (*like, want, can*) do not take the *kiyala* complementizer as we noticed above. Further, none of the lexical predicates allow a lexical/pro subject in the control constructions though they allow a lexical/pro subject in infinitive contexts when introduced by *issella* (before). But, the modals may allow a lexical subject as shown in (66) (Gair: 131: 51-54).

(66) Amma-ta [lameya vibhage pass-venna] oona  
 Mother-DAT [child(NOM) exam pass(INF)] want  
 'Mother wants the child to pass the exam'

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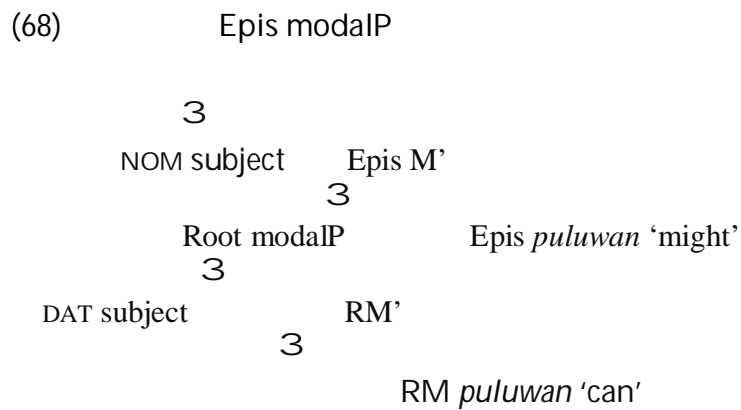
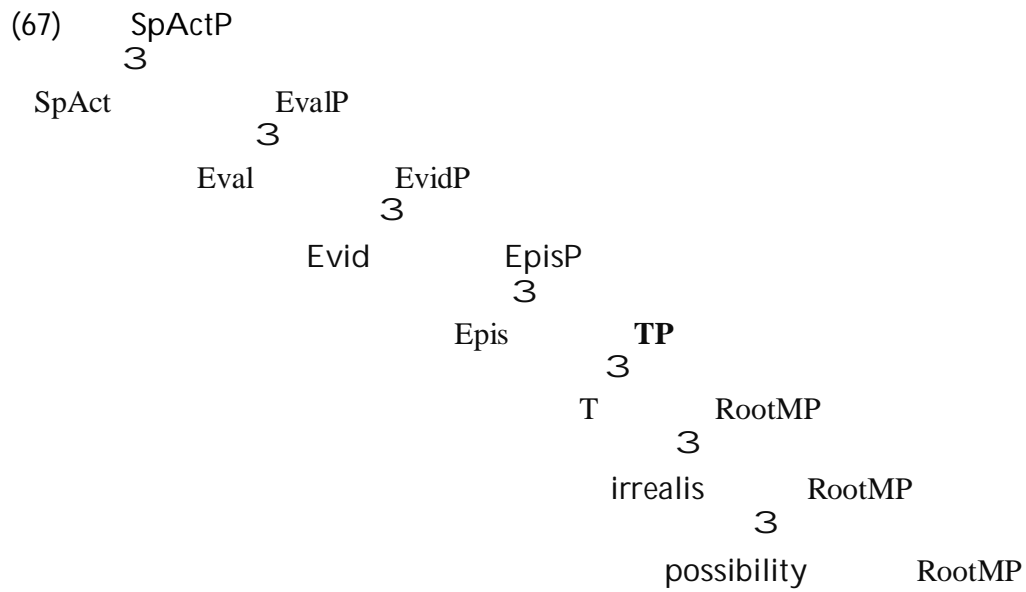
<sup>1</sup> Except with the predicate 'forget' which belongs to 'Thinking Type' (Dixon 2006), or an adjectival predicate such as 'difficult' /'easy', which needs the BE verb to show tense and therefore behaves like a modal.

Example (66) has a lexical subject in the embedded [Spec, T] and therefore, is not a control structure. Similarly, Gair's analysis of the modals as control structures when they take a matrix dative subject is questionable.

Therefore, rather than analyzing the modal predicates as control structures, I propose that they be analyzed as modal elements in the Cinque functional sequence. In particular, I propose that the difference between modal uses into nominative vs. dative subjects corresponds to the root-epistemic distinction we discussed in Chapter 3.

Recall that root modality is subject oriented, whereas epistemic modality is speaker oriented; let us now correlate these facts with the nominative-dative distinction that we see with *puluwan* 'can' and *oona* 'want' - when the modality is epistemic, the subject is in the nominative, and when it is in the dative, the interpretation is a root one.

Now let us return to the Cinque's functional sequence, which plots root modals as structurally lower than the epistemic modals. The Sinhala facts show that the lower modal position takes a dative subject, and the higher modal position that corresponds to epistemic modality takes a nominative subject. Both positions do not license PRO (67)-(68).



Gair (2005) presents the following examples as problem cases in his brief discussion of object Control (Gair, 2005: 135, 136).

- (69)    Mama    gunapalava:    daekka    [Ø<sub>i</sub>']<sub>j</sub>    pare    duvanava]  
          I        gunapala-ACC    saw    [    road(GEN)    run(PRS)  
          'I saw Gunapala running on the road'

- (70) Mama mage saikale; daekka [gunapala Ø<sub>i</sub> padinava]  
 I my cycle saw [gunapala pedal (PRS)]  
 'I saw my bicycle; Gunapala was riding it'

In (69) the null subject appears in a finite clause (present tense verb) co-indexed with an accusative subject. Since the embedded verb is intransitive, the case should be assigned by the higher verb. In (70), the co-indexed null argument is in the object position. According to the grammatical judgments of native speakers (including my own), both these sentences are totally unacceptable. The grammatical versions of them reveal that they are not control constructions, but rather, embedding in finite contexts. Therefore, the two examples should respectively be:

- (71) Mama [gunapala pare duvanava] daekka  
 I [gunapala(NOM) road(GEN) run(PRS)] saw  
 'I saw Gunapala running on the road'

- (72) Mama [gunapala mage saikale padinava] daekka  
 I [gunapala(NOM) my cycle pedal (PRS)] saw  
 'I saw Gunapala riding my bicycle'

Notice here the absence of the complementizer *kiyala*. The selecting predicate in both sentences is *see*, which is a verb of attention –more specifically, verb of direct perception/observation (Dixon 2005). In Sinhala, this predicate may select a CP complement or a gerundive complement (in addition to a DP), but not an infinitive complement. What we have here then is a CP complement without the complementizer, and my intuition is that because the predicate entails reporting



of a direct observation, the complementizer is elided. With the change of predicate (73)-(74), the complementizer appears.

(73) Mama [gunapala pare duvanava kiyala] paeminili-kara  
 I [gunapala(NOM) road(GEN) run(PRS) COMP] complain-did  
 'I complained that Gunapala was running on the road'

(74) Mama [gunapala mage saikale padinava kiyala] paeminili-kara  
 I [gunapala(NOM) my cycle pedal (PRS) COMP] complain-did  
 'I complained that Gunapala was riding my bicycle'

Dixon (2005) observes that complement clauses with attention verbs have a special property. That is, in such clauses, the subject is generally distinct from the matrix subject for the straightforward reason that one would not normally *see* or *hear* etc. oneself: (One would not report normally doing so). I conclude that the above examples are not cases of control, and as observed earlier, Sinhala does not show object control into a finite clause.

### **6.3.2 Landmarks in the Theory of Control**

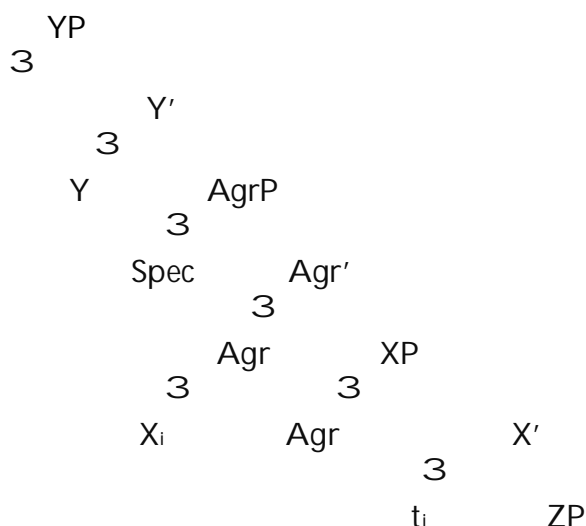
#### **6.3.2.1 Watanabe(1993)**

Modifying the AGR based Case theory of Chomsky (1991) that was adopted from Split Infl hypothesis of Pollock (1989), Watanabe (1993) proposes a three layered case checking mechanism that involves the full clause structure with AGR projections. In keeping with the minimalist model, he relies on X-bar theoretic apparatus of [Spec-head] and [Head-Comp] relations. Case checking is accompanied by phi-feature checking between the Agr head and a DP in the [Spec, AgrP] which applies to accusative, nominative and null case checking. A

case bearing head X (X can be V for accusative, T for nominative and null case) is raised and adjoined to Agr (Agro/Agrs), and case feature matching takes place with the DP in [Spec, Agr] as a [Spec-head] relation. Nevertheless, Watanabe proposes an additional step here in the form of a follow up checking. That is, in case checking with Agr, a feature [F] is created in Agr, which needs further movement of Agr (together with finite verb or Tense) to a higher functional head to check off this [F] feature. This will make Agr and [F] disappear so that both will not be visible at LF. Therefore, an appropriate checker of [F] feature is necessary. Watanabe supports the argument for the [F] feature with evidence from subject clitic doubling in Northern Italian dialects proposing that this subject clitic is most likely to be the phonetic realization of feature [F].

He proposes the following configuration where X is a case feature bearing element, and Y an appropriate checker of an [F] feature (Watanabe 1993: 56)

(75)



Under the modified view of case theory, case checking is optional. If an appropriate element corresponding to Y in (75) exists, the head Y itself must

undergo feature checking with AGR, which carries an [F] feature. If there is no such Y in the structure, then case checking cannot take place because the derivation crashes. Therefore, he calls this approach Three Layered Case checking where Tense-AgrS-Y all take part in the operation. In the case of nominative case checking, this higher functional head corresponding to Y is C. Movement of AgrS to C must take place in order to check off the [F] feature created by case checking in AgrsP. If there is no appropriate C, the derivation will crash as the Agr-s carrying [F] feature cannot disappear. The follow up checker for accusative borne by V is Tense, and the follow up checking takes place as in nominative case checking. When case checking fails to take place, he proposes that a case feature of a DP will be transferred to AGR so that a case bearing head can discharge its case feature, and AGR too can disappear at LF. He states that case features are the only features that can disappear in this manner without checking.

Watanabe uses this modified case theoretic approach involving Agr-T-C to account for the null case checking and raising. Following Chomsky and Lasnik (1995), he proposes that PRO also needs case, and the checking involves C (in addition to infinitive T and Agr heads). The feature [F] is created here too and the complex head [Agrs+V+Agro+T+Agrs] is adjoined to C in order to check off the [F] feature. If there is no appropriate C, the derivation crashes as the Agrs carrying the [F] feature cannot disappear in this case. This explains the following contrast (Watanabe 1993: 62).

(76) \*John believed [IP PRO to have won the race]

(77) John tried [CP e [IP PRO to win the race]]

In (76), there is no appropriate C to check off the [F] feature, leading to ungrammaticality. In contrast, in (77), there is a C head to check off the feature [F], so that Agr-s carrying [F] can disappear, making the sentence grammatical. Based on this analysis, he concludes that PRO complements must be CPs, while ECM/Raising complements are TPs. Watanabe highlights that an overtly filled C position as in the case of lexical complementizers in Italian and French is quite compatible with this approach: They are C heads that check off the [F] feature created in null case checking.

#### **6.3.2.2 *Martin(2001)***

Martin (2001) attempts to capture the distribution of PRO in terms of the temporal properties of the control complement. Building upon a proposal by Stowell (1982) that raising/ECM clauses and control clauses have different tense interpretations, Martin presents a unified analysis of the null case theory of control and the properties of raising. He proposes that T in control infinitives checks null case, while T in raising infinitives does not check case. He argues that the event time of the control infinitive is unrealized or future with respect to the matrix event time, which makes it [+Tense] (78). In contrast, the event time of the raising complement is identical or simultaneous with that of the matrix predicate making it [-Tense] (79) (Martin 2001: 147).

(78) Sara convinced Bill to go to a party.

(79) The doctor showed Bill to be sick.

In (78), Bill has been convinced to go to a future party, and hence the tense of the embedded clause is unrealized/future with respect to the matrix tense. In (79), at the time of doctor's showing, Bill was sick and there the tense of the embedded

clause is identical to the matrix tense. This provides a natural characterization for the proposed case distinction: [+T] and [+Finite] checks nominative case, [+T] and [-Fin] checks null case, [-T] and [-Fin] does not check case. Therefore, according to Martin, tense properties of a clause determine its control/raising properties. Martin also proposes that event denoting predicates carry an event variable that must be bound by a tense operator or some other operator such as Be/have. He claims that this event variable is not present in ECM/raising (-Tense) contexts. Therefore, only stative/habitual predicates are allowed in such contexts. Since ECM/raising are [-Tense], they cannot bind an individuated event and similarly cannot license PRO.

The range of applicability of Martin's proposal can be seen only in the context of cross linguistic facts. He presents a broad generalization on the basis of tense/event binder and attempts to capture control and raising distinction accordingly. Nevertheless, a number of questions that can be raised in this regard are: Do all cases where PRO is licensed convey an individuated interpretation? Do all cases of PRO with an individuated interpretation are due to the tense operator of the embedded clause, or doesn't the matrix tense influence such reading, establishing a tense dependency? Since gerunds also license PRO, do all such gerunds that license PRO consistently fall into the individuated interpretation category?<sup>2</sup> In Sinhala, we have already observed that the typical raising-to-object predicates/ECM do not take infinitival complements. Further, we need to account for the role of C in control structures. In Martin's proposal, the temporal properties that establish a control relation are [+T, -Fin], whereas [+T, +Fin] assign nominative. In Sinhala, we observed that a control

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<sup>2</sup> See Pires (2006) for a discussion of problems in Martin's proposal with respect to Brazilian Portuguese.

relation is established even with [+T, +Fin], and Martin's proposal cannot capture this phenomenon. Therefore, an analysis along the [+/- Tense] for control (and raising) in Sinhala cannot be motivated.

### **6.3.2.3 Hornstein (2003)**

Reviewing some existing literature on PRO from a minimalist perspective, and identifying a number of redundant technicalities in the GB theory to the approach of PRO, Hornstein (2003) motivates a movement approach to PRO. He argues that PRO is a theory internal formative which neither feeds the PF nor LF so that it should be dispensed with, particularly in a refined approach such as the Minimalist Program. His central argument is that through such dispensing, obligatory control can be reduced to a movement approach. Hence, he analyzes control as a case of DP movement and proposes modification to the GB conception of chains. While previously, a chain was allowed to contain one case position and one theta position, in his proposal, a chain can consist of multiple theta positions to which a DP can move. Based on the differences between obligatory control (OC) and non-obligatory control (NOC), Hornstein derives the crucial analogy that PRO in OC is like an anaphor and PRO in NOC is like a pronominal, rather than PRO becoming an anaphor and a pronominal simultaneously as required by the PRO Theorem.

Hornstein's argument that obligatory control PRO is identical to an NP trace, and, NOC PRO is *pro*, is based on a number of assumptions such as theta roles are features on verbs, Greed is Enlightened Self Interest, a D/NP receives a theta role by checking a theta feature of a verbal/predicative phrase that it merges with, there is no upper bound on the number of theta roles a chain can have, and

sideward movement is permitted. Hornstein illustrates the movement approach to OC in the following manner (Hornstein, 2003:11).

(80) John hopes to leave

[IP John [VP John [hopes[IP John to [VP John Leave]]]]]

The derivation begins with John merging with *leave*, thereby checking the verb's theta role. John then raises to the embedded [Spec, TP] to check the [D] feature of TP. As this is not a case marking position, John raises again to [Spec, VP] of *hope* and checks the external theta feature of the verb. Each time John checks a theta feature of a predicate, it assumes that theta role. Thus, John (or the chain it heads) has two theta roles, the *leaver* role and the *hoper* role. Finally, John raises to [Spec, TP] of the matrix clause where it checks the [D] feature of TP and nominative case. Hornstein observes that the copy in the embedded [Spec, TP] corresponds to PRO and the copy in the matrix [Spec, TP] corresponds to its antecedent. He claims that the movement approach to OC accounts for all the properties of OC thereby eliminating the necessity of null case and a separate control theory.

Hornstein's movement theory of control captures the properties of OC such as locality and c-command requirement, as his analysis treats the controller-controllee relation on a par with an A-chain. NOC, on the other hand, does not display these properties as the relation between antecedent and PRO is not movement-based, and therefore, do not have a chain relation. One major theoretical achievement of Hornstein is the unification of raising and control along a movement approach with the major difference that in control, the moving element acquires an additional theta role.

Although Hornstein's movement approach to control as such is not the focus of discussion here (see the debate between Landau (2003) and Hornstein-Boeckx (2004), what is significant here is whether we can adopt his theory to explain Sinhala control. As noted before, Sinhala control has certain unique properties such as control into finite clauses with obligatory complementizer *kiyala*, obligatory subject control into finite clauses, and partial control into a finite clause. Our discussion of raising in Chapter 5 revealed that there is no raising/ECM in Sinhala, and the lexical item (*vage*) that corresponded to English raising 'seem' is not even a raising predicate. Further, colloquial Sinhala does not have a passive, and hence does not show evidence for NP movement. Therefore, application of Hornstein's movement-based control theory to Sinhala is problematic.

#### **6.3.2.4 Landau (2004)**

Landau (2004) motivates an Agree based analysis for obligatory control (OC) in finite complements of Hebrew and Balkan. He proposes that the I and C of the embedded complement are specified for T and AGR, which, together with the ability of a DP (pro/lexical subject) to show independent reference, determine the type of embedded subject (lexical/pro/PRO). What is of immediate concern to us here is his discussion of finite control and related properties. Landau observes that in Hebrew, finite control is possible only with 3rd person embedded subjects, with certain matrix predicates, and that too when the complement clause is in future tense (81)-(82) (Landau 2004: 816-817).

- (81) Gil hizkir      le-Rina<sub>1</sub> se-pro<sub>1/2</sub> tin' al                      et      ha-delet  
 Gil reminded to Rinal that pro will lock. 3sg F Acc the door  
 'Gil reminded Rina to lock the door'



- (82) Gil hizkir      le-Rina<sub>i</sub> se- \*(hi<sub>i/2</sub>)    na' ala            et    ha-delet  
 Gil reminded to Rina<sub>i</sub> that (she)    locked. 3sg F Acc the door  
 'Gil reminded Rina that she had locked the door'

The verbs that select such future complements in object control contexts are directives (involving requests, orders, proposals), and in subject control contexts, commissive verbs (declare, promise). Noting that factive predicates do not allow finite control (83), he proposes that finite control complements in Hebrew are subjunctive, as they share the syntactic properties of subjunctive complements such as obligatory future tense, irrealis interpretation, NPI licensing (where a matrix negation can license an NPI inside an infinitive/subjunctive complement), and, obligatory control of a null subject in the complement clause by a matrix argument. He concludes that Hebrew finite complement clauses have PRO and not *pro* subjects (Landau 2004:818).

- (83) Sar            ha-ocari          samax      /hicta'er se-    \*(hui)  
 Minister    the treasury was-glad /sorry    that- \*(he)  
 yorid                            et      ha-misim.  
 will-lower.3sg.M    Acc    the-taxes  
 'The minister of treasury was glad/sorry that he would lower the taxes'

Landau's discussion of finite control in the Balkan languages further typologizes the class of subjunctives: Free (F) subjunctives and controlled (C) subjunctives. Free subjunctives have a tense operator, as two different temporal adverbs can modify the matrix and embedded verbs and hence they are cases of no control (84). Controlled subjunctives do not have a tense operator and hence they are untensed as their tense is anaphoric or identical to matrix tense (85). Therefore,

they cannot have different temporal adverbs for the two clauses. PRO is licensed in such untensed clauses (Landau, 2004: 831, 21).

(84) **Now**, John hopes to/wants to leave **tomorrow**.

(85) \***Now**, John knows how/begins to swim **tomorrow**.

Landau shows that the selection of the subjunctive is a lexical property. For example, ‘decide’ selects a free subjunctive and ‘forget’ selects a controlled subjunctive. Extending the analysis to Balkan infinitive clauses, Landau argues that untensed infinitive complements are of exhaustive control (EC) type, and the complements with dependent tense (+T) are of partial control (PC) type.

For the analysis of Sinhala, Landau’s conclusion that finite control complements in Hebrew are subjunctives, indicating irrealis mood, is of importance. One crucial property of all the Sinhala control types discussed above is the future orientation of the embedded predicate. I will now explore whether we can indeed characterize these complements in terms of Landau’s subjunctive properties.

First of all, recall that we have already noted that when the embedding predicate is in the present tense, the embedded action always receives an irrealis interpretation as in (86), just as Landau’s diagnostics would demand:

(86) Ajith [PRO kaareka soodanava kiyala] porondu-una  
Ajith [PRO car wash(PRS) COMP] promise-was  
‘Ajith promised that (he) will wash the car’

Further inspection reveals that, in control complements like in Hebrew, NPI licensing by the matrix predicates is also possible, as in (87).

- (87) Mama [PRO kisma deyak vikunanava kiyala]  
 I [PRO any thing sell(PRS) COMP]  
 thiranaya kare naeha  
 decide did-E Neg  
 'I did not decide that PRO will sell anything'

Note that an indicative sentence in the embedded context does not allow NPI licensing by the higher predicate, as shown in (88). The example involves the morphological future marker *-vi* that can convey either future or irrealis interpretation.

- (88) \*Mama [kisma deyak mama vikunaa-vi kiyala]  
 I [any thing I sell-FUT COMP]  
 thiranaya kare naeha  
 decide did-E NEG  
 'I did not decide that I will sell anything'

Finally, with regard to the overt *kiyala*, there is cross-linguistic evidence that shows complementizers not only mark indicative, but are part of the subjunctive as well.

Noonan (2007) discusses a number of languages where the same complementizer is used both in the indicative and the subjunctive, e.g., Lori, a dialect of Persian, or Russian (where the subjunctive is always accompanied by the modal particle *by*), and even English, which uses the same complementizer in both indicative and subjunctive (Noonan 2007: 61).

- (89) I insisted that Roscoe lives here  
 (90) I insisted that Roscoe live here

Noonan argues that only languages that distinguish tense or aspect in their verbal morphology show an indicative/subjunctive distinction; this observation holds for Sinhala as well<sup>3</sup>.

Noonan observes that subjunctives can be used in the imperative sense, and this fact also holds for Sinhala. Control clauses freely convey the imperative mood, as in (91)-(92).

(91) kaareka soodanna!

car wash(INF)

‘Wash the car!’

(92) Kaemata enna/ enava!<sup>4</sup>

Food-to come(INF)/ come (PRS)

‘Come for food!’

To conclude, there is good reason to characterize Sinhala control complements with present tense embedded predicates as subjunctives. Following Spyropoulos (2007), I further analyze these as dependent subjunctives which he identifies for Greek.

In Greek, Spyropoulos points out that three types of subjunctive clauses obtain: (a) Independent subjunctives (IS), (b) dependent subjunctives (DS), and (c) anaphoric subjunctives (AS). The crucial determining property of all these types is the tense of the embedded clause. Independent subjunctives have full temporal

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<sup>3</sup> Further, Sinhala also confirms Noonan’s claim that main clause subjunctives tend to be used in modal, hortative, or imperative senses. Recall our discussion of Sinhala phi-agreement in the embedded hortative in partial control, where we argued that the embedded complement was irrealis (subjunctive).

<sup>4</sup> A polite way to make a request, however, is to use the infinitive.

properties so that the embedded predicate can be even in the past tense. Dependent subjunctives, on the other hand, have a fixed temporal reference, mainly future (irrealis), and cannot be modified by past tense adverbs. He claims that this fixed temporal reference is imposed by the semantics of the matrix predicate, which may be of the class that includes *want, prefer, manage, force, persuade, arrange, tell, order, encourage, advise, decide* etc. In anaphoric subjunctives, the event time is identical to that of matrix clause, and it cannot be modified by a temporal adverbial that is future oriented. AS clauses are selected by '*know how, dare, learn how, forget, remember, begin, stop, see, hear*' etc.

By this typology, the Sinhala subjunctive falls into the dependent subjunctive class. They have a fixed temporal reference with respect to the matrix tense. However, still we need to explain a number of phenomena associated with Sinhala obligatory control, and, I attempt to do so in the next section.

### **6.3.3 An Analysis**

To summarize, the *kiyala* complementizer occurs in all control types, optionally or obligatorily. The temporal adverb placement too applied to all of them. The control complements that allow *kiyala* also allow temporal adverbs. We also noticed that the lexical properties of selecting predicates play a major role in determining the other properties. Further, object control into a finite complement is not possible. Therefore, for obligatory control, the correlation with *kiyala* seems to be crucial.

These properties raise important theoretical questions. (1) Since C may be lexically filled, does this entail that C transfers all its Agree features to T in these contexts so that the embedded PRO subject receives nominative rather than null

case? Or is it the case that Sinhala C-head lacks the relevant features in control contexts so that nominative case is not possible? This is also plausible as Sinhala does not show phi-agreement and therefore the embedded T is not phi-complete. (2) In the feature transfer/inheritance approach to clausal complements, a plausible way of defining control complements is that control in which C has not transferred its Agree features to T. Then, given that there is enough evidence to characterize the Sinhala cases as ones of control, what implication do the facts of Sinhala have for our theory of PRO? Is the presence/absence of C an indication of feature transfer or not? (3) What is the role of tense and agreement in determining the reference of empty categories? Are these the only categories that can license such referential interpretations or does mood and modality also play a role? To answer these questions, I will make use of the insights of Watanabe (1993), and Landau (2004), in the following sections.

Recall that we analyzed *kiyala* in Chapter 2 as Force. Sinhala control facts show that the control complements are ForcePs. Let us explore this conjecture first. Watanabe (1993) makes a structural distinction between control and raising on the basis of the follow up checker, C. The [F] feature created in Agrs disappears in C, as C is available in control constructions making obligatory control possible. Therefore, control constructions are CPs (while raising structures are TPs). Note that this is the same position assumed by Chomsky (2002, 2004) in his feature transfer proposal. There too, control constructions are CPs, with the difference that C does not transfer its phi-features to T in this case.

Returning to Sinhala, the correlation of control with *kiyala* complementizer suggests that Sinhala control constructions are CPs/ForcePs. The null case bearing infinitival T can check its null case at C in a [Spec-head] relation. Sinhala

offers evidence for the presence of C/Force in control with the overt presence of *kiyala* in most cases of control.

However, this still leaves a number of questions unanswered. If C/Force is the null case checker, then why should it block object control into a finite complement? Also, why does *kiyala* intervene for referential dependencies, as binding is blocked in (94). Note that both are PRO constructions, as a lexical subject is ruled out in PRO's position, as shown in (95).

(93) Mama matama [PRO gahaganna] hithuwa  
I self [PRO hit(INF)] thought  
'I thought to hit myself'

(94) \*Mama matama [PRO gahaganna **kiyala**] hithuwa  
I self [PRO hit(INF) **COMP**] thought  
'I thought to hit myself'

(95) Mama matama [\*Nimal/ PRO gahaganna] hithuwa  
I self [\*Nimal/ PRO hit(INF)] thought  
'I thought to hit myself'

Also, note that we cannot attribute the ungrammaticality of (94) to the lexical properties of 'thought', as the grammatical (97) with *kiyala*, in the (96)-(97) contrast indicates.

(96) Mama [PRO caareka vinunanna] hithuwa  
I [PRO car sell(inf)] thought  
'I thought to sell the car'

- (97) Mama [PRO caareka vinunanna **kiyala**] hithuwa  
 I [PRO car sell(inf) **COMP**] thought  
 'I thought to sell the car'

Now with binding, referential dependency of anaphors must be in the same clause. Example (94) indicates that C/Force introduces a phase, and therefore, the locality requirement for binding is not obtained.

Recall that, in Sinhala, a control relation obtains even without *kiyala*/Force. The default control structure is the one with the infinitive. Also recall that, following Landau (2004), we have already analyzed all control complement types in Sinhala as subjunctives. Therefore, in keeping with both Landau and Watanabe, I propose that the projection involved in null case checking in Sinhala is the subjunctiveP. Since our subjunctive analysis was based on the future/irrealis orientation of the complement clause, let us call this, irrealisP. Based on this assumption, I propose the following (98) for null case assignment.

- (98) Null Case

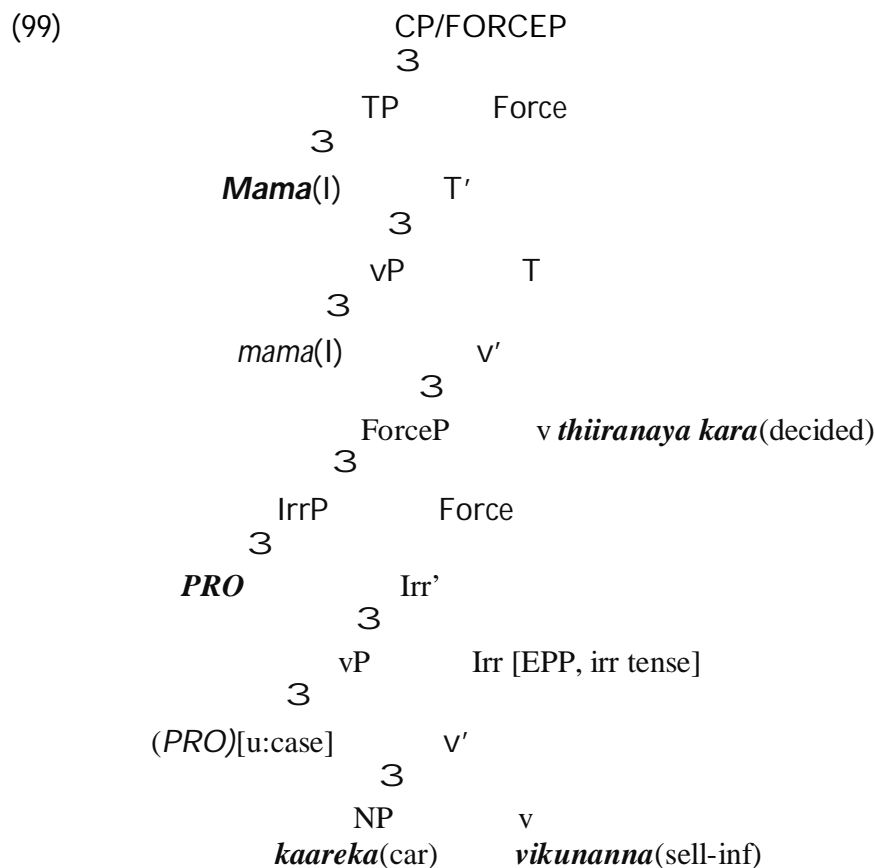
An unvalued case feature on a pronoun goal is valued as null via [Spec-head] agreement in an irrealis projection carrying irrealis tense.

Note that this necessitates a modification of our earlier proposal (Chapter 2, footnote 7) that the feature speciation of *kiyala* is [+T] and [+Finite] (in addition to [+Force and [+propositional]). Bickerton (1975) uses the term irrealis as indicating 'unreal time'. McGregor (1990) uses the term irrealis to denote irrealis tense. He observes that in Gooniyandi, an Australian Aboriginal language, one particular occurrence of the irrealis tense is with the subjunctive mood. The irrealis subjunctive contrasts with the irrealis potential mode in that the former does not need a factual basis. "It merely asserts, claims, hypothesizes the proposition that



the situation might have occurred when it didn't. There need be no evidence backing up this hypothesis" (McGregor: 548). Therefore, following Bickerton and McGregor, I consider the irrealis specification to be a tense.

Returning to our null case assignment, I propose that PRO joins the derivation with an unvalued [case] feature. C/Force transfers its EPP feature to the irrealis head. Since there is no –e suffix (-e morphology) on the matrix verb, which we considered as a manifestation of non-transfer of C's Agree-based features to a modal head, it is quite plausible that C transfers its EPP feature in this case to the irrealis head. Consequently, PRO raises to [Spec, irrealis] checking its null case feature (99).



## 6.4 Optional Control

Optional control obtains when the controller and the infinitive are not clause mates. Two distinct situations can arise in this case: one is that the controller is altogether absent, and this is referred to as arbitrary control. The other is that the controller is in a clause different from the main clause. This is referred to as long distance control.

Sinhala optional control cannot have arbitrary PRO with the reference '*oneself*' so that control properties of these constructions are questionable. In (100), PRO is controlled by the matrix subject and hence patterns with the obligatory control construction. On the other hand, a lexical DP can occupy PRO's position (101), once again showing that only a specific reference is available in this case.

- (100) Nimal<sub>i</sub> aehuwa heta [kohoma da [PRO<sub>i</sub> haesireнна oona  
Nimal asked tomorrow [how Q [PRO behave want  
kiyala]]  
COMP]]  
'Nimal asked how PRO should behave tomorrow.'

- (101) Nimal aehuwa heta [kohoma da [Sunil haesireнна oona  
Nimal asked tomorrow [how Q [Sunil behave want  
kiyala]]  
COMP]]  
'Nimal asked how Sunil should behave tomorrow.'

Nevertheless, there is ample evidence to suggest that these are optional control constructions.

a) **Multiple antecedents/split antecedents:**

- (102) Ajith<sub>i</sub> Nimal-ta<sub>j</sub> [PRO<sub>i/j</sub> pitath venna velaaava hari (kiyala)] kiuwa  
 Ajith N-DAT [PRO leave be(INF) time ok (COMP)] said  
 'Ajith told Nimal that it is time to leave.'

As the co-indexation shows, PRO can have reference to Ajith, Nimal, or both, simultaneously.

b) **Long distance reference**

- (103) Ajith<sub>i</sub> Nimal-ta<sub>j</sub> kiuwa [John<sub>k</sub> kiuwa kiyala [PRO<sub>i/j/k</sub>  
 Ajiith Nimal-DAT said [John(NOM) said COMP [PRO  
 pitath venna velaaava hari kiyala]  
 leave be(INF) time ok COMP]  
 'Ajith told Nimal that John said that it is time to leave.'

c) **C-command is not necessary**

- (104) [PRO<sub>i</sub> haemadaama ude-ta duwana eka] Nimal-ge<sub>i</sub>  
 [PRO everyday morning-DAT run(PTCP) NMLZ] Nimal-GEN  
 vinodaansaya-k  
 hobby-INDF  
 'Running every morning is Nimal's hobby'

Except (104), all the other PRO constructions are in the infinitive. These diagnostics suggest that the control structures introduced above belong to optional control (as in English). However, in all of them, the 'oneself' form is not possible. If we consider arbitrary reference as the most fundamental syntactic

requirement in optional control, then, the unavailability of it in Sinhala<sup>5</sup> highlights that the Sinhala optional control belongs to a subset of the optional control constructions available in other languages. However, the typology of control is a controversial issue where ready agreement among linguists is not available; If we go by a broad framework of control where obligatory and non-obligatory control are two major types of it, then Sinhala optional control falls under non-obligatory control.

### 6.5 Arbitrary Control

Since PRO<sub>Arb</sub> occurs in a subject clause, the clause is nominal. Sinhala has a number of nominal structures that can host PRO<sub>Arb</sub>. One such construction is the derived nominal (105), and another is the gerundive nominal with the nominalizer *eka* (one), as in (106).

- (105) [PRO<sub>Arb</sub> Cigarette beema]    honda   naeha  
          [PRO   cigarette   smoking] good   Neg  
          ‘Cigarette smoking is bad’

- (106) [PRO<sub>Arb</sub> Cigarette bona- eka]                    honda   naeha  
          [PRO   cigarette   smoke(PTCP)-NMLZ ] good   Neg  
          ‘Cigarette smoking is bad’

Like arbitrary control clauses merged in matrix subject position in other languages, Sinhala subject clauses are also nominal. In each, there is no complementizer and embedding by a verbal predicate.

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<sup>5</sup> This does not mean that Sinhala does not have control structures with PRO Arb interpretation as we shall see in the next section. What this means is that Sinhala cannot have PRO Arb optionally side by side the obligatory reference.

## 6.6 Control into Adjunct Clauses: The Empirical Facts

Although many of the adjuncts in English that allow control are infinitival, Sinhala shows a number of gerundival adjunct possibilities as well. Further, English infinitive adjunct clauses that allow control are divided into a number of subtypes as- purpose clauses, result clauses, goal clauses- etc., based on semantic criteria (Huettner 1989). The following discussion reveals that such extensive listing of gerundive or infinitive adjunct clauses is not available for Sinhala. Also, I do not intend to go into a detailed account of the adjunct control clauses here<sup>6</sup>. In what follows I provide a brief outline of the adjunct control clauses in Sinhala, paying attention to their general and special properties.

Sinhala has a number of adjunct clauses where PRO can occur (107)-(112). Examples (107)-(110) contain gerundive adjuncts which are time adverbial clauses denoting temporal sequence with respect to the matrix clause. However, the realization of the temporal reference is different in each clause. In (107), the matrix event takes place after the embedded event. Example (108) is a typical *while* adverbial clause. Here, the event time of the embedded clause is identical or anaphoric with the matrix event time. Although example (109) too conveys the same meaning and same tense relations, the particular temporal interpretation is obtained through reduplication of the verb root. In (110), we have a typical *when* clause. Here too, the event time of the embedded clause is identical to that of the matrix clause. Examples (108) - (110) appear to refute Martin's (2001) (and hence Stowell's 1982) argument that anaphoric tense cannot license null case.

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<sup>6</sup> See Gair, Lust, Sumangala, and Rodrigo (1998), for a discussion of different adverbial clause types and control relations in Sinhala.

- (107) Mama [PRO kadeta gihilla] badu gaththa  
 I [PRO shop-DAT go(PTCP)] goods bought  
 'I went to the shop and bought goods.'
- (108) Nimal [PRO paadam karana gamang] bath kaeva  
 Nimal [PRO studies do (ADJ) while] rice ate  
 'Nimal ate rice while (he) was studying.'
- (109) Nimal [PRO paadam kara-kara] bath kaeva  
 Nimal [PRO studies do (root)-do(root)] rice ate  
 'Nimal ate rice while (he) was studying.'
- (110) Nimal [PRO kolamba yana kota] aliyek daekka  
 Nimal [PRO Colombo go(ADJ) when] elephant saw  
 'Nimal saw an elephant when (he) was going to Colombo.'

Examples (111)-(112) contain infinitive clauses, of which (111) is a subject control clause denoting a purpose. In (112), we have object-control into the adjunct clause. As for its semantic type, it can be called a stimulus clause (Huettnner 1989).

- (111) Sunil<sub>i</sub> [PRO<sub>i</sub> interview eka-ta andinna] kameesayak gatta  
 Sunil [PRO interview one-DAT wear (INF)] shirt bought  
 'Sunil bought a shirt to wear for the interview'
- (112) Sunil Nimal-ta<sub>i</sub> [PRO<sub>i</sub> kameesayak ganna] salli dunna  
 Sunil Nimal-DAT [PRO shirt(INDF) take (INF) money gave  
 'Sunil gave money to Nimal to buy a shirt'

Having established the grammatical type of the control adjunct clauses and their temporal relation to the matrix clause, now let us try to establish their control

properties. In particular, we need to determine whether they have obligatory or non-obligatory control properties. This question is important in the context of their adjuncthood and other related properties such as extraction/islands. Therefore, let us consider some diagnostics such as the local/non-local antecedent requirement, c-command, and split antecedents applying to the unmarked order of the whole complex sentence. Example (113) shows that when there is a local antecedent for PRO, it cannot be co-indexed with a distant one. (114) shows the c-command requirement for adjunct control, and, (115) shows the impossibility of multiple antecedents for PRO. Therefore, under the above diagnostics, control into adjunct clauses appears to be as in obligatory control.

(113) \*Ajith<sub>i</sub> kiuwa Nimal<sub>j</sub> [PRO<sub>i</sub> kolamba yana kota] aliyek daekka  
 Ajith said Nimal [PRO Colombo go(AD<sub>j</sub>) when] elephant saw  
 kiyala  
 comp  
 'Ajith<sub>i</sub> said that Nimal<sub>j</sub> saw an elephant when (he<sub>i</sub>) was going to  
 Colombo.'

(114) \*Nimalge<sub>i</sub> amma<sub>j</sub> [PRO<sub>i</sub> daruva(va) balanna] aava  
 Nimal-GEN mother [PRO child (ACC) see (INF)] came  
 'Nimal's mother came to see the child'

(115) \*Ajith<sub>i</sub> kiuwa Nimal<sub>j</sub> [PRO<sub>i/j</sub> kolamba yana kota] aliyek  
 Ajith said Nimal [PRO Colombo go(AD<sub>j</sub>) when] elephant  
 daekka kiyala  
 saw comp  
 'Ajith<sub>i</sub> said that Nimal<sub>j</sub> saw an elephant when (he<sub>i/j</sub>) was going to

Colombo.'

Another property of Sinhala adjunct control is that the controlling argument can be absent as in (116)-(118). In (116) and (117), the control clauses are gerundive, while in (118), it is infinitive.

(116) [PRO kadeta gihilla] badu gaththa  
[PRO shop-DAT go(PTCP)] goods bought  
'Went to the shop and bought goods.'

(117) [PRO paadam karana gamang] bath kaeva  
[PRO studies do (ADJ) while] rice ate  
'Ate rice while studying.'

(118) Kameesaya-k gatta [PRO interview eka-ta andinna]  
Shirt-INDF bought [PRO interview one-DAT wear (INF)]  
'Bought a shirt to wear for the interview'

The non-obligatoriness of the matrix controlling argument suggests that the control properties involved here are not that of obligatory control. Then, the higher VP also cannot be a part of the local domain of the adjunct in order to keep a c-command relation into the adjunct. This indicates that the adjunction is at TP level.

Another property of the infinitive adjunct clauses is that an inanimate argument also can be the controller (119). In general, this kind of inanimate controllers are not observed in the non-obligatory control contexts in Sinhala. Therefore, this particular property suggests that the control clause has a sufficient local relation to the controlling argument.



- (119) Nimal<sub>j</sub> maduwak<sub>i</sub> haeduwa [PRO<sub>i</sub> badu daanna]  
 Nimal shed(INDF) made [PRO goods keep(INF)]  
 'Nimal made a shed to keep goods'

Another piece of evidence that seems to highlight the locality relation in adjunct control is case sharing. In (120), the controller shares nominative with the reflexive, suggesting that case sharing is possible into adjuncts. This may indicate a local agree relation between PRO and the controller.

- (120) Nimal naegitta [PRO minissunta eyaama katakaranna]  
 Nimal stood [PRO people-DAT himself(NOM) talk(INF)]  
 'Nimal stood up to talk to the people himself'

The above brief discussion reveals some of the properties of adjunct control in Sinhala. The picture that emerges is that of a conflicting nature so that a definite conclusion about their type cannot be established; nevertheless, it is safe to say that the majority are of obligatory control type. All the above control clauses, both gerundive and infinitive can be freely scrambled and this too makes judgments difficult.

Gair (2005) observes that the *while* (*gamang*) clause (108), contrasts with the *when* (*kota*) clause (110), in terms of control. He observes that the null argument in the *while* clause needs to be co-indexed with the matrix subject, whereas this is not needed in the *when* clause. Thus (121) which requires co-indexing is contrasted with (122) which allows but does not require it.

- (121) Ø<sub>i/\*j/\*k</sub> Pare yana gamang ammai lamayava<sub>j</sub> baeluwa  
 Ø Road(LOC) go (ADJ) gamang mother child-ACC watched  
 'Mother watched the child **while** she<sub>i/\*j/\*k</sub> was going along the road.'

- (122)  $\emptyset_{i/j/k}$  Pare        yana        kota amma<sub>i</sub> Gunapalava<sub>j</sub>    baeluwa<sup>7</sup>  
 $\emptyset$     Road(LOC) go (ADJ) kota mother Gunapala-ACC watched  
 ‘Mother<sub>i</sub> watched Gunapala<sub>j</sub> **when** she/he/someone else was going along  
 the road.’

In fact, contrary to Gair’s observation, the contrast between the *while* and *when* clauses with respect to control properties cannot be motivated. That is, according to the interpretive judgments of a number of native speakers (including my own), the null argument cannot refer to anybody else other than the matrix subject. In both clauses, *mother* is the controller, and *gamang* (while), and *kota* (when), do not change the control properties of the two clauses.

## 6.7 Conclusion

This chapter examined the control phenomena of Sinhala, and our investigation reveals a number of important observations. One is that, a control relation can be established into finite clauses with a number of finite properties. Notable among such properties are the obligatory/optional presence of the complementizer and different temporal properties. One of our major conclusions was that these finite control clauses in Sinhala are actually subjunctives in line with finite control in Hebrew. We highlighted that these properties raise a number of theoretical questions for a transfer/inheritance approach to control theory. Therefore, we concluded that null case in Sinhala is checked at an irrealis projection.

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<sup>7</sup> Daekka (saw) is a better predicate here. But still, the control properties remain the same.

## **CHAPTER 7**

### **CONCLUSION**

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The aim of this concluding chapter is two fold. First we will discuss how the clause structure is conceptualized in Chomsky, Cinque, and Rizzi, paying special attention to how clause structure and information structure interact with each other in their proposals. Second, we will speculate on the implications the conclusions we have derived from Sinhala so far have for these conceptions. The chapter is organized in the following manner.

In section 1, I will discuss the proposals of Chomsky, Cinque, and Rizzi with a view to examining the interaction between clause structure and information structure that their proposals offer. Section 2 presents a summary of the thesis with particular attention to the major observations, conclusions and theoretical proposals. In section 3 we will discuss the implications that these conclusions and observations have for the clause structure and information structure as conceptualized in Chomsky, Cinque, and Rizzi.

#### **7.1 Clause Structure and Information Structure: Chomsky, Cinque, Rizzi**

An overview of the Minimalist readings reveals the shifts the treatment of information structure has undergone within the Minimalist Program (MP) itself. Though the conception of the clause structure too has changed over time, the structural representation of a clause built upon the X-bar format with a lexical layer headed by a verb, an inflectional layer, and a complementizer layer headed by functional categories has largely remained the same. The head C and its specifier have largely remained the target of all A-bar movement including the information structure related movement.

It is also true that the notion of clause structure and information structure has been shaped by the conception of language itself. According to Chomsky (1995), language is a generative procedure that constructs the pairs  $(\pi, \lambda)$  that are interpreted at the articulatory-perceptual (A-P), and conceptual-intentional (C-I) interfaces and are subject to the condition of Full Interpretation (FI). The inclusiveness condition restricts this pair  $(\pi, \lambda)$  to nothing more than an arrangement of lexical features contained in the initial lexical selection. Chomsky suggests that the surface effects such as topic-focus “seem to involve some additional level or levels internal to the phonological component, post-morphology, but pre-phonetic, accessed at the interface along with PF (Phonetic Form) and LF (Logical Form)” (Chomsky 1995, 220). As for the functional categories that play a major role in the structure, he refers to T, C, D, and Agr, of which the first three have semantic properties and, Agr does not. D is considered to be the locus of referentiality. C is basically an indicator of force or mood. Clause building is conceived as a joint operation of Merge, and Move in a feature driven approach.

In recent Minimalism (Chomsky 2000, 2001), the clause structure is the outcome of merge, move, and agree built on the architecture of a probe-goal relation. The core functional categories are limited to v, T, and C, whose features trigger the clause building operations. C expresses elocutionary force/mood and has an optional EPP feature for Wh. However, in keeping with the developments in the cartographic frameworks, notably of the information structure related projections, Chomsky suggests that when C gets an EPP feature, it automatically also gets a P(eripheral) feature or information structure related features, such as topic and focus. Chomsky further suggests that the derivation proceeds by phases where phases are propositional units that have phonetic independence.

Among the two phases, CP phase is considered a strong phase and a complete expression structure, whereas the vP phase is the complete argument structure. The introduction of the edge feature has further accommodated the information structure into syntax so that C and its specifiers can host discourse related XPs.

As the preceding brief overview highlights, there is very little scope for information packaging within the syntactic model developed by Chomsky. As viewed in these frameworks, initially, information structure (IS) had been the outcome of phonology alone and belonged to the domain of pragmatics. Though there have been a number of studies within the generative model, notably in the 1980s and 1990s that have attempted to incorporate information structure into mainstream syntax, (Brody, Choe, Erteschik-Shir, Kiss, Kidwai, Laka, Rochemont, Tsimpli, Uriagereka) the very restrictive nature of the generative model, and later the minimalist program (MP) have often pushed the information packaging to the periphery. The feature-driven minimalism determines movement only if it is obligatory, and therefore, optional topic/focus movement was not syntactically motivated. Triggers for movement are the morpho-syntactic features that entered a checking/matching relation. In Chomsky's model (1995, 2000, 2004), syntactic output interfaces only with PF and LF, and therefore, there was no particular interface between PF and LF for IS. Further, if topic-focus are not introduced in the Numeration, they violate the Inclusiveness condition, as such features will have to be added during the derivation. But, cross linguistic studies have made it clear that IS interacts with phonology, morphology, syntax and semantics, thus interfacing with all modules of the grammar. Although Chomsky proposes certain measures to accommodate IS into syntax, for example the multiple specifiers, edge feature, P feature in C etc, they do not correspond to a general theory of topic and focus. Hence, his

theory of clause structure has not attempted to integrate the information structure into syntax in a manner suggestive of a general theory of topic and focus. The following quotation in Erteschik-Shir (2007) expresses Chomsky's views on the role of IS in syntax clearly.

"I suppose it is possible to argue that the computational-representational system accesses features of language use, though what such a system would look like, I have no idea. Suppose, for example, we consider the (plainly correct) fact that in a linguistic interchange, new/old information is a matter of background that participants assume to be shared (what is some-times misleadingly called "discourse"; there need be no discourse in any significant sense of that term). Suppose further (as appears to be correct) that old/new information relates to "displacement effects" in narrow syntax. And suppose further (merely for correctness) that we take these displacement effects to be expressed in narrow syntax by transformational operations. Should we then say that the operations of object-shift, topicalization, and so on literally access shared background information? This seems close to incoherent: any clarification of these intuitive ideas that I can think of yields computational systems of hopeless scope, compelling us to try to formulate what amount to "theories of everything" that cannot possibly be the topic of rational inquiry.

...A more reasonable approach, I think, is to take the operations to be "autonomous," i.e. syntax in the broad sense, and to understand pragmatics to be a theory concerned with the ways properties of expressions (such as displacement) are interpreted by language external

(but person internal) systems in terms of old/new information. That leaves us with manageable and coherent questions" (Erteschik-Shir 2007: 213-214).

In contrast to Chomsky's minimalist model, Cinque (1999) and Rizzi (1997, 1999) show a radically different conception of clause structure and information structure. Whereas Chomsky insists on the bare minimum, the latter two adopt an articulated functional layer of dedicated positions for the inflectional and discourse layers. I do not intend to go into their proposals in detail as I have already done so in the preceding chapters. Nevertheless, it is important to see their conception of clause structure and information structure which is different from Chomsky's, though within the same generative grammar model. According to Cinque (2004), "cartographic approaches to syntactic structure aim at drawing a map, as detailed as possible, of the functional (or grammatical) structure of the clause and of its major phrases. The underlying assumption of this project is that all languages share the same functional categories and the same principles of phrase and clause composition, although they may differ in the movements they admit and in the projections that are overtly realized (Cinque 2006: 4-5).

One basic assumption in the cartographic project is the view that 'syntactic structures are uniform, locally simple and both necessary and sufficient to structurally represent the grammatical or functional information relevant for semantic/pragmatic interpretation' (Shlonsky 2008). As such, the cartographic frameworks not only expand the feature composition of the heads but also expand the structural layer of the clause with more functional heads. For example, the cartographies of the vP space resulted in a refined articulation of aspect and event semantics, the cartographies of the inflectional space resulted in

a refined articulation of moods, modals, tenses and aspects, the cartography of the CP space allowed a refined articulation of the left periphery and the information structure. All these frameworks, while emphasizing the simplicity of their respective approaches, argue for the universality of the functional architecture of the clause. Nevertheless, all these frameworks raise interesting questions for the grammatical theory, language, and UG. Are all these features encoded in language, although overtly not present, or does the UG provide only a subset of certain features so that there is competition among features to be lexically and syntactically represented? How do we determine the bare minimum? Is the distinction between the different domains as in inflectional and discourse domains real, and therefore, clause structure and information structure need to be kept apart? We will examine some of these questions in the light of Sinhala observations in our discussion below. Before that, I present a summary of the topics we discussed in this study as well as some notable observations.

## 7.2 Summary

We began this dissertation with an account of the empirical terrain of this study. This was followed by a brief survey of the major claims and conclusions we reached and the structure of my arguments pertaining to these empirical observations. Our topic in Chapter 2 was complementizer distribution in Sinhala. Here we examined the four complementizers *kiyala*, *bava*, *vaga*, and *viththiya* of the Sinhala clause. In the discussion of the theoretical approaches available for complementizer distribution, we noted that each proposal was distinct and there was less scope for convergence between them. However, I argued that in order to capture the complexity of the structure of UG complementizer domain, we needed both the cartographic and minimalist approaches. The major findings



pertaining to the complementizers in Sinhala and their inflected forms supported this claim. For example, we observed that the quotative complementizer in Sinhala is *kiyala* which is associated with epistemic mood and that it occupies Rizzi's Force position. In contrast, the feature specification of the *bava* complementizer was rather impoverished when compared to *kiyala*, which warranted its analysis as Rizzi's Fin. Also we noticed that in Sinhala, factivity is determined by the *bava* complementizer rather than a distinct factive predicate, which makes the *bava* complements factive. Of the inflected forms of the complementizers, we noticed that the *-th* inflection showed a number of syntactic phenomena including clause coordination, and focus. We located *-th* as a distinct head in the vP domain. We analyzed *-ta* of *bava-ta* as a mood irrealis head which is located in the C domain. We proposed an NPI/ *n*-word analysis for *bavak/vagak/viththiyak* where *-k* is a head in the vP domain to whose specifier the embedded FinP moves. Finally, we concluded that the inflection *baevin* occurs in an adverbial phrase and therefore no complementation is involved.

The aim of Chapter 3 was to present a comprehensive discussion of the functional architecture of Sinhala. In particular, we examined the mood/modal markers in terms of root and embedded peripheries. A major theoretical proposal that shaped the discussion here was the functional sequence of Cinque (1999). One of our arguments was that modality in Sinhala is not determined by the modal head alone, but also by the verbal morphology as well. In the proposals made here, the primary reflex of this phenomenon was the *-e* suffix that appeared on the verb in the case of narrow scope marking of a modal. In our analysis, we considered this as evidence for Agree-based feature transfer from C to a modal head. Another significant observation was that *puluwan* (can) with a nominative subject expresses epistemic possibility and with a dative subject

expresses root modality of ability. Crucially this corresponded to two subject positions in the Cinque hierarchy- epistemic modal subjects occurring higher and the root modal subjects occurring lower. Also, we noted that, root and embedded modals in Sinhala largely corresponded to the dedicated positions in Cinque's functional head hierarchy and were further hierarchically organized among themselves. Further, we noticed that, as cross linguistically attested, the embedded clause in Sinhala was relatively impoverished. We also examined different NEG positions in the Sinhala clause and found that they occupy the same structural position, just as different root modals do. We motivated a transfer/inheritance analysis for the Sinhala modals.

Chapter 4 examined the Wh and the information structure of Sinhala, notably, Q (da), topic, and focus in terms of their interaction with the clause structure. Our discussion was largely shaped by Rizzi's (1997, 1999) left periphery analysis. We focused on morphological encoding of focus and topic, excluding other forms of topic/focus marking. Our analysis of morphological focus showed that focus in Sinhala occupies a vP peripheral focus position in line with Jayaseelan (2004, 2008). We noticed that this is the same structural position for (object) Wh. Although topic showed rather unique properties, we concluded that its structural position is in the left periphery as proposed by Rizzi (2007). One of our major observations pertaining to these theoretical proposals was that there is considerable overlap between the CP and TP peripheries with respect to the universal order of functional heads proposed by Cinque (1999) and Rizzi (1997, 1999). Notably, the structural positions of focus and Wh in Sinhala reveal that there is considerable overlap between these cartographic frameworks. This empirical evidence further justified the theoretical question we posed 'how much is universal is the universal in these frameworks?'

In Chapter 5, our focus was the raising complements of Sinhala. The discussion covered raising to subject, raising to object and ECM. Our examination of a pseudo-raising proposal revealed that Sinhala does not warrant such an analysis. The main theoretical proposals made in the chapter are that: Sinhala does not have a raising predicate, and the lexical item (*vage*) that corresponds to the raising predicate ‘*seem*’ in English is actually an epistemic modal head. Another notable observation is that Sinhala does not have raising to object or ECM.

Chapter 6 examined the control complements of Sinhala. I claimed that the modals *puluwan* ‘can’ and *oona* ‘want’ in Sinhala do not warrant a control analysis, contrary to Gair’s (2005), and instead, they are heads in Cinque hierarchy that host two subjects: a nominative and a dative one. Also, following Landau, I argued that the Sinhala control complements with a finite embedded verb and the complementizer *kiyala* are subjunctives. In order to capture these properties, I proposed a transfer/inheritance analysis.

### **7.3 Discussion**

This section examines the implications that Sinhala conclusions have for the clause structure and information structure as conceptualized in Chomsky, Cinque, and Rizzi. First, recall my claim that we need both the minimalist and the cartographic frameworks in order to sufficiently capture the cross linguistic facts about the interaction between clause structure and information structure. This dissertation attempted to substantiate this claim with evidence from Sinhala, from all the structural domains of the clause, vP, TP, and CP. Therefore, in the following sections, I attempt to highlight to what extent the minimalist and cartographic proposals can be empirically substantiated with the Sinhala findings related to clause structure and information structure.

The existence of two cartographies, rather than one, side by side though not complementary, adds to the level of difficulty in reconciling them. Each cartographic framework is conceived as a distinct theoretical construct dealing with different domains of the clause. Cinque himself is skeptical about reconciliation as expressed in “however, it is dubious that Mood Speech Act and Rizzi’s Force should be identified” (Cinque 1999: 84). Further, Cinque’s specifiers host adverbs, whereas Rizzi’s host categories with nominal properties as operators, topics, foci etc. Whereas in Cinque’s cartography, there is an identical relationship between the head and the specifier -for example, an evaluative mood head can host an evaluative adverb in its specifier, in Rizzi’s there isn’t. ‘That is, a verb moved to the specifier of a topic projection does not receive topical information. This highlights that in Cinque’s framework, heads have an identical semantic value for their D and V features whereas in Rizzi’s, these heads are privatively specified for their value’ (Kidwai 2008). Nevertheless, as we have seen in the case of Sinhala (Malayalam and other languages), this distinctiveness cannot be empirically motivated. We noted that, among other examples, the INT position of Rizzi that is located in the C domain in his proposal can occupy a position in Cinque’s functional head domain. Conversely, we noted the mood irrealis head –*ta* (of *bava-ta*) in Sinhala occupying a position in the C domain, above FinP of Rizzi’s proposal. Further, while proposing distinct heads for mood/modality/topic/focus and INT, as in cartography, we motivated a transfer/inheritance analysis for all of them, following minimalism.

This empirical evidence motivates an approach to clause structure that incorporates both cartographies emphasizing that the universality based cartographic frameworks and the minimality based Chomsky’s clause structure model are fundamentally not at invariance with each other. Nevertheless, some

important questions remain. The multiplicity of heads and projections in the cartographies, though present an articulated clausal structure, do not correspond to the minimalist spirit of keeping to the bare minimum. This anomaly raises a number of questions pertaining to features, feature checking and feature transfer. For example, what is the exact role of C in clause structure? Does C encode all type of discourse features attested cross linguistically? In a system where C-T act as a unit, does C transfer all such features to T? If not, what determines what kind of features C retains and what kind of features it transfers? What kind of checking relations do they enter? Is information structure always peripheral to the clause?

Chomsky identifies (in GB) C as a head whose specifier can host XPs of different types. In Minimalism, C is the locus of Agree and P(eripheral) features, and, in later Minimalism, C is the head of a strong phase. Rizzi identifies C as C- space with distinct IS related projections where Force corresponds to actual C head. In Cinque's functional head hierarchy, Speech Act mood corresponds to C, although Cinque projects it as the highest head in the inflectional domain. Complementizers are shown to occupy the C/Force/Speech Act Mood thereby indicating clause type/illocutionary force of the utterance. But how far universal is this claim? Empirical observations make these questions even more complex. For example, in Sinhala (and as in Malayalam too), the quotative complementizer does not need even a clause as a complement as indicated in (1)-(3).

- (1)        Engine    eken    Grrr..    kiyala    saddayak    enava  
              Engine    from   Grrr..    COMP    noise            come(PRS)  
              'A noise corresponding to Grrr.. comes out of the engine'

- (2) Issara kaale Peter kiyala kenek ape game hitiya  
 Previous time Peter COMP one our village(LOC) was  
 'In the past, there was a man called Peter in our village'

Similar observation holds for Malayalam too as Jayaseelan (2008) observes (Jayaseelan 2008: 47, 10-c)

- (3) meSiin "Grrr..." enna sabdam uNDaakki  
 machine "Grrr...COMP sound produced  
 'The machine made a sound Grrr...'

Examples (1)-(3) highlight that complementizer alone cannot be a force/speech act indicator of a clause. In order to accommodate these other discourse functions of the complementizer, I have made a distinction between clause type and the illocutionary force, where *kiyala* encodes illocutionary force and the root C/FORCE determining the clause type. Further, I have proposed that in Sinhala, mood and modality is indicated jointly by the Force head and the verbal morphology (-e suffix). Also, we cannot ignore the more conceptual problem as to the suitability of the term force/illocutionary force to a grammatical category, namely the mood of a speech act. As Nordstrom (2010) points out, 'illocutionary force refers to the conventional force behind an utterance but not to the utterance itself (the locution). It is a notion that lies outside the grammar in the narrow sense' (Nordstrom: 50). Cinque (1999) identifies the same by his Speech Act mood, which correctly captures this grammatical category. However, the structural position that it occupies, as we noted earlier is totally different from that of Rizzi's.

As highlighted in the preceding sections, clause structure, as conceived in minimalism, has pushed the information structure to the periphery. The clause

cannot have features that are not part of the initial lexical choice, a claim that resists cross linguistic facts. For example, we noted that in Sinhala, IS can be morphologically represented through particles/lexical words. This is so in Somali and Bantu also, as observed by Lecarme (1999), and Aboh (2007) respectively. Therefore, such particles and lexical words denoting topic/focus should be part of the lexicon and have semantic content. In a Numeration, they should be part of narrow syntax. In this sense, IS is pre-determined. The featural content of those IS related words too should take part in feature checking/matching relations just as Agree features do. Under current minimalist assumptions, the subject DP moves to [Spec, T] to check the EPP feature and this follows from UG principles. Miyagawa (2010) argues that [Topic/Focus] features trigger movement to [Spec, T] (or other related head) in Japanese (discourse configurational languages in general), just as [Agree] features trigger movement to [Spec, T] in English. In our analysis of topic/focus, we proposed a transfer/inheritance relation between C and a TOP/FOC head, an overt reflex of which is the *-e* suffix. This triggered an Agree relation between the TOP/FOC head and a matching DP, although there is no raising on this occasion.

This cross linguistic evidence- from Sinhala, Japanese, and Malayalam etc. among others- challenges the minimalist stand point about clause structure and information structure. Our observations indicate that the restrictive theory of clause structure as conceived in minimalism cannot sufficiently account for or capture cross linguistic variations, and therefore, narrow syntax should accommodate IS, rather than pushing it to the periphery. For example, we noticed that Sinhala can have a low focus projection in the vP periphery as it is so in Malayalam. Wh facts revealed that this is the same position for object Wh in Sinhala. Although minimalism offers multiple specifiers both in the vP and CP,

hosting a focused constituent in one of them, this does not account for cross linguistic facts where focus is morphologically realized and is a distinct head. Therefore, the low focus position I have proposed for Sinhala (in line with Jayaseelan for Malayalam), while raising questions for the minimalist clause structure, also indicates overlaps between the two cartographies of Cinque and Rizzi, and once again questions the universality claims in each.

How lexical properties determine clause structure (and information structure) as in the case of topic-focus, is evident in the control phenomena of Sinhala. In our discussion of different control types, we noticed that control into a finite clause with the obligatory *kiyala* complementizer is possible. We noticed that French and Italian too allowed lexical complementizers in control structures as observed by Watanabe (1993). However, Sinhala differed from those two languages as Sinhala has a finite embedded predicate and an obligatory complementizer. Therefore, we noticed a strong C-V connection based on the [+Finite] feature of the embedded verb. In other words, this reflected a head-head relation. The same head-head relation holds in complementizer selection too. The higher predicate determines whether it is *kiyala* or *bava/vaga/viththiya* heads the complement clause. We have analyzed *kiyala* as the quotative that occupies Rizzi's Force position and *bava* as the Fin head.

Some of the Sinhala observations pertaining to modality have notable implications for Cinque's cartographic proposal of clause structure. We have already observed that there are overlaps between the two cartographies. Cinque makes a structural distinction between epistemic and root modalities. The distinguishing criterion is the T head located between these two types of modals. Since there are a number of T heads further down in the hierarchy, it is exactly



not clear what T head corresponds to T in Chomsky's minimalist model. In my attempt to absorb Cinque's model into the minimalist framework, I have projected T as the highest head in the inflectional domain as it is in minimalism. Nevertheless, we observed that Sinhala modal particles are rigidly, hierarchically ordered as in Cinque's. We also noticed that the specifiers in Cinque's projections are potential subject positions. We supported this claim with evidence from the root modal *puluwan* (can), which can host a dative subject indicating root modal ability, and a nominative subject indicating epistemic possibility. The two subjects occupy two different positions- the nominative one with the epistemic interpretation occurs higher than the dative one with root modal interpretation. This denotes that adverbs are not the only categories that can occupy the specifier positions of those functional heads.

Having discussed some theoretical implications that this study raises, I wish to point out that this dissertation is far from complete. A comprehensive study of clausal complementation entails discussion of all complement types, their internal syntax, interaction with morpho-syntax, phonology, semantics, and pragmatics, among many others. However, the scope of the present study was limited to the factive-propositional, raising and control complements, and the C domain. Among the many areas that it did not examine fully are the other complement types such as participial complements, gerundial complements and other non-verbal complements. With respect to the clausal architecture, we did not pay sufficient attention to the tenses and aspects as formulated in Cinque (1999), or the phase-based clause structure as in Chomsky (2008), or the relative operators as in Rizzi (1997). We did not examine control into adjunct clauses fully as we omitted a number of adjunct clause types. We did not discuss the other types of focus such as prosodic and syntactic, as we exclusively dealt with

morphological focus. Nevertheless, in the backdrop of a dearth of research on Sinhala complementation phenomena in particular and Sinhala syntax in general, this thesis attempts to contribute, with evidence from Sinhala, to the ongoing theoretical discourse of how clause structure and information structure are conceptualized in Chomsky (1995, 2002, 2006), Rizzi (1997, 1999), and, Cinque (1999).

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